

SMOKE SIGNALS

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 27th Year

Single Copy: \$1.25

Return Address:
Kenneth A. Ebnetter
822 Wauona Trail
Portage, WI 53901

Forwarding and
Return Postage Guaranteed
Address Correction Requested

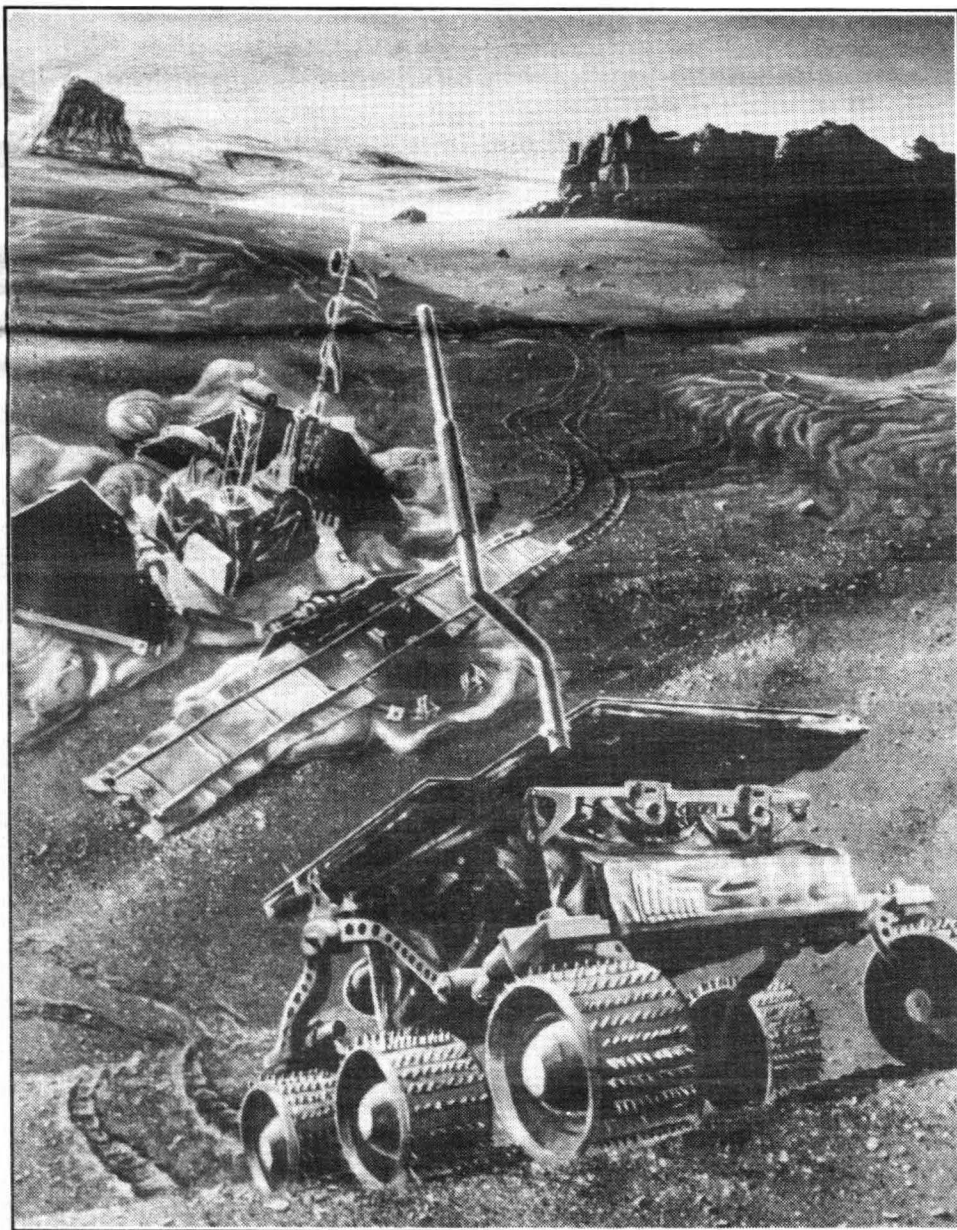
Bulk Rate
U.S. Postage
PAID
Permit #265
Portage WI 53901

Vol. 27 No. 12 • 322nd Consecutive Monthly Issue • Baraboo, Wisconsin • December 1996

Sheboygan County club members to help NASA test Mars probes' antennae

Hams to help worldwide project

By Chris Jacobs, N9VKC, and NASA



This artist's rendering shows the Mars pathfinder lander and rover in operation on the Martian surface in July 1997. Once on the surface, the lander petals will deploy to expose three solar panels for power. The lander camera will survey the surroundings and the rover will be positioned for deployment to the surface. The lander will transmit engineering and science data directly to earth at a few thousand bits per second. The microver will then move out, using the exit ramp shown in this illustration, to explore the surface near the lander. Able to roam within 10 meters (33 feet) in any direction of the lander, the rover carries an imaging spectrometer which will be able to make detailed x-ray analyses of the chemical composition of rocks in the area. Designed to conduct the majority of its science operations in the first seven days after deployment, the rover will receive instructions from a controller on earth, who will designate targets and tasks for it to carry out autonomously.

NASA photo

Members of the Sheboygan County Amateur Radio Club will be helping to evaluate antennas on two Mars probes, one launched in November, and the other in December by unmanned Delta rockets.

The Mars Relay Flight Test will be a two-way test of the Mars Relay onboard the Mars Global Surveyor and Russian Mars'96 spacecraft. The test is planned to occur shortly after spacecraft launch while each spacecraft is near the Earth. The Flight Test will involve the support of the UHF-capable worldwide radio amateur community.

From 1960 to 1992 there have been 26 missions to Mars from both nations.

Merry Christmas and a Happy New Year

from the staff of
Badger State
Smoke Signals

Kenneth A. Ebnetter, K9EN
Chairman and Publisher

Jim Decker, WB9UQT
Keeper of the Funds

Don Evenson, K9JYX
Production Consultant

David J. Knaus, WA9POV
Editorial Board member

Jim Romelfanger, K9 Zed Zed
Editor



Little LEOs battle continues quietly but firmly

Following the initial furor, the "Little LEOs" threat to 2 meters and 70 cm has slipped from the headlines, but efforts continue to thwart the inclusion of their commercial activities in our popular VHF and UHF bands.

Little LEO allocations for the mobile-satellite service below 1 GHz include uplink and downlink frequencies on both sides of 2 meters. Proponents of the technology claim these existing allocations are inadequate. At a May meeting of Informal Working Group 2A

(IWG-2A) -- where the needs of the low-earth-orbiting satellite industry were addressed in preparation for the 1997 World Radiocommunication Conference (WRC-97) -- the Little LEOs sought, over League objections, to include 144-148 MHz and 420-450 MHz on their list of "candidate bands," proposing to share the spectrum with hams. That prompted a call to action by ARRL Executive Vice President David Sumner, K1ZZ, who

Please turn to page 6

ON THE INSIDE

What's Happening: Edited by Ken Ebnetter, K9EN	2
Here and There	4, 5
Silent Keys	5, 15
The Computer Corner: By Dr. Stan Kaplan, WB9RQR	6
New Officers for Lakeshore Repeater Association	6
Odds and Ends and Other Stuff	6
Vanity Update	7
New Products	8
Pro-PRB-1 Legislators win New Terms	9
Riverland Amateur Radio Club	10
Wisconsin Valley Radio Association	10
Wisconsin Nets Association	10
Eau Claire Amateur Radio Club	10
Taylor County Area Amateur Radio Club	11
Watts Snoo (Central Wisconsin Radio Amateurs at UW/Stevens Point)	11
ManCoRad Radio Club	12
Washington County Amateur Radio Club	12
Quarter Century Wireless Association Southeastern Wisconsin Chapter 162	12
Red Cedar Repeater Association	13
Yellow Thunder Amateur Radio Club	13
Vanity Program on Hold	13
The Wisconsin Packeteer (Wisconsin Amateur Packet Association)	14
FCC-Issued Call Sign Update	15
Sheboygan County Amateur Radio Club	15
Racine Megacycle Club	15
Yellow Thunder Amateur Radio Club	15
AEA for Sale	15
"Metz" Wins Re-election as ARRL Central Division Director;	
Huntington narrowly Keeps Vice-Director's Post	15



WHAT'S HAPPENING

✕ Swapfests and Other Social Events ✕ Club Meetings
✕ Amateur Radio Exam Schedules

EDITED BY KENNETH A. EBNETER, K9EN, 822 WAUONA TRAIL, PORTAGE, WI 53901

Swapfests and Other Social Events

SUNDAY, DECEMBER 8, 1996. The Ashwabenon High School Tech Club will be holding a ham radio and computer fleamarket at Ashwabenon High School, 2391 South Ridge Road, in Green Bay, WI. Directions to AHS: from Highway 41 North or South, take Oneida Street Exit. Turn East, towards Exel Inn, continue on Oneida Street until Anderson Drive. Turn left at spotlight onto Anderson Drive, continue past football field to Ashwabenon High School on the right. Talk in is on the 147.075+ repeater. Admission is \$3.00 in advance or \$4.00 at the door. 4 ft of table space is available for \$4.00 in advance or \$5.00 at the door. Vendor set up is on December 7, 1996 from 7:00 pm to 10:00 pm. If you need motel rooms, be sure to reserve early as there is another event in town that day. For more information contact: Scott Cole, KB9AMM, P.O. Box 12631, Green Bay, WI 54307. (414) 496-0989 (days) or (414) 496-0990 (nights).

Email: n9pay@sparknet.net.

Packet: N9PAY@KB9ALN.#GRB.WI.USA.NOAM.

Web: <http://www.sparknet.net/~n9pay/fest.html>

SUNDAY, JANUARY 12, 1997. West Allis ARC, 25th Annual Midwinter Swapfest. Waukesha County Expo Center Forum, Waukesha, WI. Contact: WARAC Swapfest, PO Box 1072, Milwaukee, WI 53201.

SUNDAY, FEBRUARY 25, 1997. Red Cedar Repeater Association, Inc. Auction at the American Legion Post #53, 634 Water St., Eau Claire, WI. Contact: Steve Hart, KA9OMC, E616 810 Ave., Knapp, WI 54749. (715) 665-2374.

SUNDAY, MARCH 9, 1997. SEWFARS SWAPFEST, Waukesha County Expo Center, Waukesha, WI. Contact: SEWFARS, P.O. Box 102, Delafield, WI 53018. (414) 650-0724.

SUNDAY, MARCH 16, 1997. Tri-County ARC Hamfest at the Jefferson County Fairgrounds, Activity

Center, Hwy. 18 West, Jefferson, WI. Contact: TCARC, W9MOB, 711 East St., Fort Atkinson, WI 53538. (414) 563-6502 evenings.

SUNDAY APRIL 13, 1997. 25th Annual Madiosn Swapfest. Exhibition Hall located on the Dane County Fairgrounds in Madison, WI. For information contact: Mara, PO box 8890, Madison, WI 53708-8890. (608) 245-8890.

FRIDAY & SATURDAY, APRIL 25-26, 1997. Hamboree 19, Iowa State Convention, Marina Inn, South Sioux City, NE. Contact NFON, Mike Nikolaus, 316 East 32nd St., South Sioux City, NE 68776. (402) 494-6074. email menicko@avalon.net.

FRIDAY & SATURDAY, MAY 2-3. AES Superfest 97. Amateur Electronic Supply, Milwaukee, WI. Many supplier displays. Contact: Ray Grenier, K9KHW, (414) 358-4088. help@aesham.com.

SATURDAY, MAY 3, 1997. 19 annual Cedarburg Swapfest, sponsored by the Ozaukee Radio Club at the Circle-B Recreation Center, Highway 60 and County I (located 20 miles north of Milwaukee, west of Grafton. Admission \$4.00. both in advance and at the door. 4-foot tables are \$5.00. Food and refreshments available. Sellers set up 6:30 a.m. License exams start at 9:00 a.m. Talk-in on 146.37/97 and 146.52. For additional information, send an sase to ORC Swapfest Chairman, W58 N985 Essex Drive, Cedarburg WI 53012-1439. (414) 377-2784 or (414) 284-3271.

SATURDAY, JULY 12, 1997. South Milwaukee ARC Swapfest. American Legion Post 434, Oak Creek, WI. Contact (414) 762-3235. See also the back page and flyer ads for additional information on many of these events.

Let us know of your dates as soon as you know them. We will list them and perhaps help avoid conflicts with other events.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and

requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings



Due to space limitations, we cannot always carry the full listing of Wisconsin and area club meetings. Please see the September 1996 meetings column for the latest complete listing. The following are additions or changes since that listing.

MILWAUKEE RADIO AMATEURS CLUB

Last Thursday evening, Redemption Lutheran Church, 4057 North Mayfair Road, Wauwatosa 53222. Meetings begin at 7:30 p.m. 12 months of the year.

GREATER MILWAUKEE DX ASSOCIATION

Fourth Monday of the month at 7:30 p.m. Contact any GMDX member or Gary Schwartz, K9GS, (414) 363-4439, garyk9gs@solaria.sol.net, K9GS@WA9KEC.WI.USA.NOAM, Packet cluster: NB9C, for meeting location.

M & M AMATEUR RADIO CLUB

General meeting held second Thursday each month at 7:00 p.m. in cafeteria of BAMCm basement, Tenth Ave., Menominee, MI. All amateurs and guests are welcome. Use the 147.000+ repeater. Our net is Sunday at 7:00 p.m. on the repeater. Our address is P.O. Box 1082, Marinette, WI 54143.

The Test Point



**Amateur Radio Examination Locations
and Schedules in the Wisconsin Area**

December 07, 1996	Oshkosh (Omro), WI
December 07, 1996	Racine, WI
December 07, 1996	St. Paul, MN
December 07, 1996	Pewaukee, WI
December 07, 1997	Stevens Point, WI
December 12, 1996	Apple Valley, MN
December 14, 1996	Blaine, MN
December 14, 1996	Bloomington, MN
December 14, 1996	Madison, WI
December 14, 1996	Oak Creek, WI
December 14, 1996	Marshfield, WI
December 17, 1996	Eden Prairie, MN
December 18, 1996	Milwaukee, WI (MRAC)
December 21, 1996	Wisconsin Dells, WI
December 21, 1996	Milwaukee (Badger)
December 21, 1996	Cottage Grove, MN
December 21, 1996	Loves Park, IL
January 04, 1997	Oshkosh (Omro), WI
January 04, 1997	St. Paul, MN
January 09, 1997	Apple Valley, MN
January 11, 1997	Blaine, MN
January 11, 1997	Bloomington, MN
January 11, 1997	Eau Claire, WI
January 11, 1997	Madison, WI
January 11, 1997	Oak Creek, WI
January 11, 1997	Redgranite, WI
January 15, 1997	Milwaukee, WI (MRAC)
January 18, 1997	Cottage Grove, MN
January 18, 1997	Loves Park, IL
January 18, 1997	Milwaukee (Badger)
January 21, 1997	Eden Prairie, MN
January 25, 1997	Tomahawk, WI
January 25, 1997	Wauwatosa, WI (MRAC)
February 01, 1997	Racine, WI
February 01, 1997	Oshkosh (Omro), WI
February 01, 1997	St. Paul, MN
February 13, 1997	Apple Valley, MN
February 08, 1997	Oak Creek, WI
February 08, 1997	Madison, WI
February 08, 1997	Bloomington, MN
February 08, 1997	Blaine, MN
February 18, 1997	Eden Prairie, MN
February 19, 1997	Milwaukee, WI (MRAC)
February 15, 1997	Loves Park, IL

Badger State Smoke Signals

Amateur Radio Education and Information

CHAIRMAN: Kenneth A. Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

EDITOR: Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031. InterNet e-mail: smokesigs@baraboo.com

TREASURER: Jim Decker, WB9UQT, P.O. Box 337, Baraboo, WI 53913-0337.

EDITORIAL BOARD: Ken Ebneter, K9EN; Dave Knaus, WA9POV; Don Evenson, K9JYX; Jim Romelfanger, K9ZZ.

Subscriptions

1 year	(12 issues)	\$12.00
2 years	(24 issues - save \$2.00)	\$22.00
3 years	(36 issues - save \$4.00)	\$32.00

Special club package reduced rates are available. For information, contact Ken Ebneter, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For example, if a club meets on the 4th of the month, the

material should be sent no later than the 9th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections should be sent to Ken Ebneter.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebneter.

Club, swapfest, and Test Point information should be sent to Ken Ebneter.

Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles or posting articles on radio or telephone bulletin boards from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. **THIS CREDIT IS MANDATORY, AND NO MATERIAL MAY BE PRINTED OR POSTED UNLESS IT IS GIVEN.** This newspaper is produced by volunteer Radio Amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901. *Badger State Smoke Signals* is incorporated as a Wisconsin non-stock, non-profit organization.

Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

February 15, 1997 Cottage Grove, MN
 February 22, 1997 Wauwatosa, WI (MRAC)
 February 22, 1997 Tomahawk, WI
 February 15, 1977 Milwaukee (Badger)
 February 15, 1997 Redgranite, WI
 March 01, 1997 Oshkosh (Omro), WI
 March 01, 1997 Racine, WI
 March 01, 1997 St. Paul, MN
 March 08, 1997 Blaine, MN
 March 08, 1997 Bloomington, MN
 March 08, 1997 Madison, WI
 March 08, 1997 Marshfield, WI
 March 08, 1997 Oak Creek, WI
 March 13, 1997 Apple Valley, MN
 March 15, 1997 Redgranite, WI
 March 16, 1997 Cottage Grove, MN
 March 16, 1997 Loves Park, IL
 March 18, 1997 Eden Prairie, MN
 March 19, 1997 Milwaukee, WI (MRAC)
 March 22, 1997 Tomahawk, WI
 March 22, 1997 Wauwatosa, WI (MRAC)

Monthly, 1st Sat. Racine, WI
 (except January, July & August)
 Monthly, 1st Sat. Oshkosh (Omro), WI
 Monthly, 1st Sat. St. Paul, MN
 Monthly, 2nd Thu. Apple Valley, MN
 Monthly, 2nd Sat. Oak Creek, WI
 Monthly, 2nd Sat. Madison, WI
 Monthly, 2nd Sat. Bloomington, MN
 Monthly, 2nd Sat. Blaine, MN
 Monthly, 3rd Tue. Eden Prairie, MN
 Monthly, 3rd Wed. Milwaukee, WI (MRAC)
 Monthly, 3rd Sat. Loves Park, IL
 Monthly, 3rd Sat. Cottage Grove, MN
 Monthly, Last Sat. Wauwatosa, WI (MRAC)
 (except December)
 Monthly, Last Sat. Tomahawk, WI
 (January thru October only)
 Quarterly Marshfield, WI
 (Second Saturday every third month.)
 Quarterly Eau Claire, WI
 (Second Saturday, Jan., Apr., & Oct.
 plus annual summer hamfest.)

Many Swapfests/Hamfests offer exam sessions.
 If not shown above contact the sponsoring club in the
 Swapfest column on page 2.

The FCC now requires applicants to show their
 ORIGINAL AMATEUR LICENSE to the VEC. A copy of your
 license must be attached to your FCC form 610. You
 will also be required to have a photo ID, or other
 acceptable identification.

GENERAL RULES FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event
 there are changes and/or errors in the dates or
 information given.

Some examinations require filing an FCC Form
 610 and advance registration at least 30 days before
 the exam date. (Some VECs permit walk-ins. Check with
 sponsor.)

To register, you must first secure a copy of the
 current FCC Form 610 and fill it out completely (AND
 CORRECTLY). Get your form from an FCC Field Office,
 the ARRL. Send a 32c/ SASE if you request one from
 the ARRL. In most cases, forms can also be obtained
 from the sponsoring group.

ARRL/VEC examinations require a check for \$6.05
 payable to "ARRL/VEC".

The FCC now requires applicants to show their
 ORIGINAL AMATEUR LICENSE or CSCE to the VEC. You
 must also have two good copies of your license or
 CSCE. A copy of your license or CSCE must be attached
 to your FCC form 610 and most VEC want a copy for
 their records. You will also be required to have a
 photo ID, or other acceptable identification.

Technician class licensees must show proof of
 testing before March 21, 1987, in order to upgrade to
 General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB (MRAC/VEC) OAK CREEK, WI

SECOND SATURDAY DATE: 1:00 p.m. at Wauwatosa
 Savings Bank, 6560 S. 27th St., Oak Creek, WI.

THIRD WEDNESDAY DATES: At 6:30 p.m. at Village
 at Manor Park, (was Methodist Manor) 3023 S 84th St.,
 (84th & Oklahoma) Milwaukee, WI.

LAST SATURDAY DATES: (except December): 9:00
 a.m. at 7500 W. State St., Wauwatosa S&L, lower
 level, Wauwatosa, WI.

For Additional Information Contact; Jack
 Krause, (414) 774-6999 or call (414) 466-HAMS
 (Answering Machine) or write Milwaukee Radio
 Amateurs Club, PO Box 25707, Milwaukee, WI 53225.

Bring along your ORIGINAL license, CSCE and two
 (2) good quality photocopies, plus two forms of
 identification, such as a driver's license, etc. Also
 required is \$5.00 for the exam fee. WALK-INS are
 welcome. To register in advance, use a post card:
 print the grade of license you are applying for, and
 your name, address, and telephone number. Send the
 card to MRAC/VEC, at the addresses shown above.

BADGER EXAMINERS (BE) - MILWAUKEE

Amateur exams: 1:00 p.m. to 4:00 p.m.
 Commercial exams: 9:00 a.m. to 12:00 noon.

Unless otherwise noted at WMVS-TV studios, MATC
 Downtown campus in the C building starting at 9:00
 a.m. for commercial exams and Amateur exams at 1:00

p.m. the same day. The address is 1036 N. 8th Street,
 Milwaukee. Enter at the North West entrance of C
 Building. Walk-ins are welcome. To register in
 advance, send a post card with your name, test or
 tests you wish to take, date you wish to take, your
 call sign, address and telephone number to Badger
 Examiners, Gary J. Sharbuno, WI9M, 5119 W. Willow
 Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

Also available FCC General Radio Telephone
 Commercial exams. Fees are \$5.90 for the Amateur
 Radio exams and \$35.00 for the commercial exams.

MADISON, WI

VE exams are held in Madison every second
 Saturday morning of the month at 8 a.m. They are held
 at the operations building of the Madison
 Metropolitan Sewerage District at 1610 Moorland Rd.
 To get there take the Beltline (Hwy 12 & 18) to South
 Towne Drive. Go south 8/10 mile till South Towne
 Drive makes a bend and becomes Moorland Rd. and enter
 at gate.

You should bring a picture ID, your original
 licence and a copy of your licence. For exams beyond
 the novice tests, bring a check for \$5.90, made out
 to the ARRL/VEC. If the special 610 form with the
 medical exemption is required, contact me
 beforehand to obtain one. No appointments are
 necessary to take exams. For further questions,
 please leave a message on the mailbox or phone me at
 (608) 832-6631.

Mark Jenks, NZ9B

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July,
 and August.

Monthly exams are given 9:00 to 11:00 a.m. at
 the Red Cross Building, 4521 Taylor Avenue, Racine.
 Walk-ins are permitted.

Talk in on 147.87/.27. Inquiries and
 registrations should be directed to Robert N.
 Jensen, W0WLN, 5616 Cambridge lane #6, Racine, WI.
 Telephone (414) 886-8551.

TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC).
 Tomahawk, WI. No preregistration required, but
 appointment would be appreciated. Registration at
 8:30 a.m. and testings starts at 9:00 a.m. For
 location or other information, inquire on 145.43
 MHz. repeater or contact: Terry Collins, KB9AUP,
 W6564 Highway 8, Tomahawk, WI 54487. Telephone (715)
 453-4633.

APPLETON, WI - ARRL/VEC

MANITOWOC, WI (HAMFEST)
 KAUKAUNA, WI (HAMFEST)

Conducted by the Fox Cities ARC VE team. All
 test sessions in Appleton are held at James Madison
 Jr. High, 2020 S. Carpenter Street. Candidates check
 in between 8 and 9 a.m. with testing starting at 9
 a.m. No walk-ins after 9 a.m. Contact George R. Croy,
 W9MDP, 2113 Twin Willows Drive, Appleton, WI 54914.
 (414) 730-0967, or Larry Siebers, KD9IA (414) 730-
 0967.

STEVENS POINT, WI (ARRL/VE)

Held in room 107, of the UWSP Science Building,
 on the corner of Fourth and Reserve Streets in
 Stevens Point. Contact Joe Larson, N9JW evenings at
 (715) 344-1182.

PEWAUKEE, WI

Kettle Moraine Exam Team. Held at the Pewaukee
 WCTC Campus Science Building, Room S101. 9:00 a.m.
 to Noon. Contact Al Johnson, AA7CS. (414) 568-0836.
 103357.3222@COMPUSERV.COM

OSHKOSH (OMRO)

The Oshkosh VE Team will administer Amateur
 Radio exams monthly on the first Saturday. Exams
 will be given from 9 a.m. until noon at the Omro City
 Hall. Registration begins at 8 a.m. Walk-ins OK.
 Bring a good quality photocopy of your original
 license. The first session will be through W5YI/VEC,
 and then sessions will alternate between ARRL/VEC
 and W5YI/VEC. For more information, please call Dick
 Lemme, KB9FA, at (414) 235-0987, e-mail
 lemme@vbe.com, or write Dick at 826 Jefferson
 Street, Oshkosh, WI 54901.

EAU CLAIRE

The Eau Claire ARC will hold exam sessions on
 the second Saturday in the months of January, April,
 and October, as well as on the date of their annual
 hamfest during the summer. For further information
 contact: Carl F. Searing, W9NW, 1129 Mc Kinley Road,
 Eau Claire, WI 54703-2219. (715) 834-1303.

REDGRANITE, WI

The Radio Amateurs of Wisconsin (RAW) will be
 holding test sessions on January 11, February 15,
 and March 15, 1997. Exams will be held at the Civic
 Center in Redgranite, 202 Pine River Road, one block
 from Highway 21. Registration at 8:45 a.m. with
 testing at 9:00 a.m. Bring two forms of
 identification, \$6.05 per test, two copies of all
 original documents, CSCE's, Licenses, etc. All are
 welcome for breakfast at the Curve Inn on Highway 21,
 preceding the exam session. For further
 information, contact: Mark Miller, N9WT, (414) 231-

1662 or Terry Witt, AA9BA, (414) 685- 5018.

MENOMONEE, WI

The Menomonee, WI VE team will conduct its 1997
 exams on Saturday, March 22 and Saturday, November
 1, 1997. At UW-Stout Communication Center, 820 South
 Broadway, Menomonee, WI. Walk-ins only, 9:00 a.m. to
 11:00 a.m. Contact: Jim Ley, NX9F, (715) 232- 1397
 (W) or (715) 235-3998 (H).

WISCONSIN DELLS, WI

Wisconsin Dells City Hall, City Council
 Chambers. 10:00 a.m. to 2:00 p.m. Contact: WB9RNL,
 (608) 254-2895.

CEDARBURG, WI - ORC HAMFEST

EAU CLAIRE, WI - ECARC HAMFEST

GREEN BAY, WI - ARES HAMFEST

HAYWARD, WI - HAYWARD HAMFEST

KAUKAUNA, WI - SWAPFEST

MANITOWOC, WI, LAKESHORE HAMFEST

MARSHFIELD, WI - HAMFEST

OAK CREEK, WI - SMARC HAMFEST

RACINE, WI - RACINE HAMFEST

RHINELANDER, WI - NWARC SWAPFEST

ROCKFORD, IL - RARC HAMFEST

ROTHSCHILD, WI - WVRA HAMFEST

SOUTH MILWAUKEE, WI - SMARC HAMFEST

STEVENS POINT, WI - CWRA SWAPFEST

WAUKESHA, WI - KMRA SWAPFEST

WAUKESHA, WI - MIDWINTER SWAPFEST

DUBUQUE, IA - HAMFEST

See the Swapfest column for additional
 information and contact persons.

DUBUQUE, IA - ARRL/VEC

Dubuque Hamfest. Contact: Carl Clark, NOKAX,
 2145 Delicia Drive, Dubuque, IA 52001. (319) 557-
 9149.

LOVES PARK, IL

Third Saturday of every month. Northern
 Illinois Volunteer Examiners (W5YI VEC). Held at
 North Suburban District Library, 6340 North Second
 St. (Hwy. 251), Loves Park, IL. Contact: Dennis G.
 Eksten, W9SS, (815) 877-6768.

MINNESOTA TEST INFORMATION

From the September 1996 edition of "The Ground
 Wave", Saint Paul Radio Club.

Saint Paul Radio Club (SPRC)

Contact: Jay Bellows, K0QBE (612) 222-7253

Test Site: St. Paul Technical College

235 Marshall Ave.

St Paul, MN

TESTING: First Saturday of the month, 8:30 a.m.

Anoka Amateur Radio Club (AARC)

Contact: Art Mundy, W0FYX, (612) 571-7441

Test Site: Blaine City Hall

9150 Central Ave NE

Blaine, MN

TESTING: Second Saturday of the month, 9:00
 a.m.

Bloomington Amateur Radio Club (BARC)

Contact: Dan Royer, KEOOR (612) 888-9756

Test Site: Creekside Community Center

98th & Penn Avenue S

Bloomington, MN

TESTING: Second Saturday of the month, 9:00
 a.m.

Valley Amateur Radio Club (VARC)

Contact: Paul Ramey, WGOG (612) 432-1640

Test Site: Hayes Community Center

14601 Hayes Road

Apple Valley, MN

TESTING: Second Thursday of the month 7:00 p.m.

W5YI

Contact: Dave Ranney, N0AXL (612) 933-2182

Test Site: Eden Prairie Library

479 Eden Prairie Drive

Eden Prairie, MN TESTING: Third Tuesday

of the month 6:30 p.m.

SE Metro Area Radio Club (SEMARC)

Contact: Dave Harrell, N0IPN (612) 459-8678

Test Site: Cottage Grove fire Station

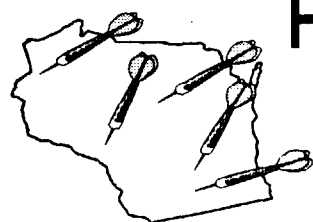
8641 80th ST., S

Cottage Grove, MN

TESTING: Third Saturday of the month, 9:00 a.m.

The above information has been furnished by the
 various VES. However, it is suggested that you
 confirm time, date and location BEFORE you make the
 trip to the test site. Occasionally, a test may be
 canceled and/or dates and locations changed. A Phone
 call could save you some grief and a wasted trip.

This section of Badger State Smoke Signals is
 available to publicize your Volunteer Examiner
 Amateur Radio license examination schedules. Please
 send us your schedules of dates, times, and
 locations that you will be conducting examinations
 and we will include the information here. Be sure to
 include contact address and any other necessary
 requirements. Information should be sent to K9EN at
 the address shown on page 2.



HERE and THERE

ARRL/VEC test fee to rise

The ARRL/VEC has set its 1997 Amateur Radio test fee at \$6.25. This is in accordance with an October 31, 1996, FCC Public Notice setting the maximum volunteer examiner expense reimbursement at \$6.26 for 1997. The current maximum is \$6.07. The new figure is based on a 3.13% increase in the Department of Labor Consumer Price Index (CPI) over the period September 1995 to September 1996. As an ARRL/VEC policy, examinations which include only Elements 1(A) (5-wpm code test) and/or Element 2 (Novice written examination) will not be charged the standard fee in 1997. Morse code exemption applicants will be charged the standard \$6.25 fee in 1997. For 1997, ARRL VEs may retain up to \$4 for each applicant they serve in order to offset their necessary and prudently-incurred expenses. ARRL VEs who retain such expense reimbursements are required by the ARRL/VEC to retain income and expense records for three years. For more information, contact the ARRL/VEC, tel 860-594-0300; e-mail vec@arrl.org. --Bart J. Jahnke, W9JJ

The ARRL Letter, 11/08/96

Happy Birthday, Walter

Former CBS Evening News anchor Walter Cronkite, KB2GSD, celebrated his 80th birthday November 4. Cronkite holds a Novice class ticket.

The ARRL Letter, 11/08/96

Nominations open for 1996 ARRL Instructor of the of the Year Awards

By Glenn Swanson, KB1GW
Educational Programs Coordinator

It's a great way to say, "Thanks!" Consider for a moment the role of the Amateur Radio instructor or recruiter. Think about what they do for the hobby. I can recall several individuals who selflessly gave of their own time to teach license classes, distribute information and help newcomers. Fact is, I probably would not be a ham were it not for the dedicated people who took me under their wings and, after a false start or two, allowed me to fly on my own. I am forever grateful to these volunteers -- heroes to me -- who supported Amateur Radio through teaching or recruitment.

Here's your chance to thank someone who may have given you a helping hand. This is the 18th year that the ARRL Board of Directors have recognized volunteer instructors and professional teachers through two awards. And there are two newer honors: The Professional Instructor of the Year and the Excellence in Recruiting awards. Here's the complete lineup:

- The ARRL Herb S. Brier Instructor of the Year Award -- presented to a nonpaid volunteer instructor.
- The ARRL Professional Instructor of the Year Award -- presented to a paid, noncertified, instructor.
- The ARRL Professional Educator of the Year

TigerTail™

- Easy to Use
- Unobtrusive
- Easily Concealed
- Snaps on Handheld
- Weighs only 1/3 oz.
- Adds No Bulk or Height

Range Extender for
2 meter Handhelds
• Boosts Signal from Flex
& 1/4 wave Antennas
• Lowers Radiation Angle
• Improves both Receive
and Transmit
• Raises Low Power
Performance
• Saves your Battery Pack

AntennasWest
Box 50062-W, Provo, UT 84605
Order Hotline
800-926-7373

7⁹⁵
pod

See and Hear the Difference

<http://www.far.net/radioadventure>

Ham Radio a boost to Shannon Lucid at the final frontier; Sees STS-79 launch from orbiting Mir

By Philip Chien via InterNet

Recently, Shannon Lucid held a press conference with reporters around the country about her record-setting stay aboard the Mir space station. Several areas not normally interested in space stories (San Francisco, Cleveland, and Huntsville) participated, showing that there's still a lot of interest in Shannon's activities aboard Mir.

Several of the questions pertained to amateur radio aboard Mir (and some didn't even come from me!) She said - It was real nice. My daughter [Shandara KC5UAR] and son-in-law [Jeff Richeson KC5UAQ] got their ham radio licenses just before I launched [on STS-76] so they would go out to the ham shack here at JSC [W5RRR] because there's a real good antenna there and they would talk to me as long as the passes weren't really early in the morning or real late at night. And sometimes they would take their lunch out there and talk to me and that was really nice. And a lot of the people who I work with would come out and talk with me and that was real nice to talk to various people who you work with and you knew.

I saw the STS-79 after it had launched and it was like a great big white star. And while I was watching it at one window Sasha [Kaleri] came and said 'quickquick come'. He wanted me to listen to it on the ham radio, which was in another module, so I flew in there and listened. Someone [KSC area ham John Anderson K4GCC] made a phone patch so we could hear the PAO commentary on the launch so we heard about the APU and everything, so that was really interesting.

I was able to get messages from my family. My husband [Michael Lucid] wrote me a message every single day, which I thought was absolutely remarkable because he's not a writer. I didn't get them every day because it had to be sent over on E-mail and on the packet system on the ham radio. So some times it took several days before I could get any messages up. But I think that was one of the big factors I didn't feel lonely, I was getting daily messages from them - about what car didn't work, if dishwasher didn't work, and I found out from my kids that their dad put in bleach with the wash so all of their clothes were ruined.

Learning those kinds of things on a daily basis keeps you connected with your family, keeps you connected with life down here on Earth and I thought that was very important.

Shannon also participated in the normal postflight presentation to the Johnson Space Center employees with the rest of the STS-79 crew. She and pilot Terry Wilcutt talked about the ham activities aboard both Atlantis and Mir.

During the slides presentation pilot Terry Wilcutt said: .. Jay also has on a headphone that's connected to our VHF radio. We use that for ship-to-ship communications conversation with Mir. And also for an experiment called SAREX which turned out to be a really good deal. I'm sure will be important for long duration crew members. Each of the crew members on 79 got to make a personal phone call to their families, and I can tell you that's a real boost to morale when you've been up there for a while. And we also used it to find out sports scores and things like that during random contacts.

During a video tour of the Mir complex Shannon said: Also in the base block is the ham radio. We used it to talk many times with Houston, you could talk with your family. And Valeri [Korzun] and Sasha [Kaleri] also liked to use the ham radio a lot.

Award -- presented to a professional teacher.

- The ARRL Excellence in Recruiting Award -- presented to hams who exemplify outstanding recruiting enthusiasm and technique.

To nominate an individual for one of these awards, send an SASE to the ARRL Educational Activities Department, 225 Main St, Newington, CT 06111, and ask for an Instructor of the Year nominating form. (You can request a copy of the "Terms of Reference" for a given award via fax at 860-594-0259, or by e-mail to ead@arrl.org.) Send all nominations to your ARRL section manager (see page 12 of any QST for the address) by January 31, 1997.

All winners receive cash stipends and beautifully engraved plaques. Two clubs stepped forward to cosponsor two awards in 1995: The Lake County Amateur Radio Club of La Porte, Indiana -- a long-time supporter of the Herb S. Brier Instructor of the Year award -- and the Central Michigan Amateur Radio Club (CMARC), of Lansing, Michigan, cosponsor the 1995 Professional Educator of the Year award.

Plaque sponsorship is a perfect opportunity for your club members to help give recognition to instructors, recruiters and to your club! It's very simple. Your club contributes \$80 (tax-deductible) to the cost of the plaque, which is purchased by the ARRL. The plaque is sent to the ARRL official who will present it to the winner, usually at a convention or hamfest. In turn, your club is honored by being named along with nominees and winners, in QST and other ARRL publications. Of course, your club's name appears on the plaque as well. To sponsor a plaque for the 1996 winners, contact the ARRL Educational Activities Department.

ment, 225 Main St, Newington, CT 06111.

Cash stipends are another way to help out. Last year, the ARRL Foundation Inc granted \$250 cash stipends to winners of the three 1995 ARRL Instructor of the Year awards, and to the winner of the 1995 ARRL Excellence in Recruiting award.

For the 1996 awards, we're asking for your support. Please consider a tax-deductible donation to the ARRL's "IOY Award Fund." It's another way you can show your support for those who unselfishly give their time and energy to our hobby. An award of \$250 may not seem like much, but it helps award winners defray some of the costs of education and recruitment (gasoline, photocopying, stationery supplies, and a cup of coffee or two).

Please help us continue this "final touch" that the ARRL Foundation so generously seeded in 1995. Make checks payable to the ARRL IOY Award Fund and send donations to the ARRL Educational Activities Department, 225 Main St, Newington, CT 06111. Any amount you can give will make a difference.

Show your support for those who gave so much to all of us!

The ARRL Letter, 11/08/96

APRS helps recover ham's stolen car

Scotty Liekette, W8KXX, of San Diego, California, made one of those mistakes that paid off big time! While calling the police to report his car had just been stolen, he remembered he had accidentally left his new project -- an APRS car tracker--turned on inside the car. Using his home computer and the WB4APR Automatic Packet Reporting System (APRS) software, he located his car on the local San Diego map, still sending current GPS position

Adams County Amateur Radio Club

SPRING HAMFEST

Sunday, June 1, 1997
(Tentative)

Adams County Fairgrounds
West of Hwy. 13 on Cty. J • Friendship, WI
8 a.m. to 2 p.m. • Seller Setup at 7 a.m.
Talkin on 145.29 Adams Repeater

Adams County Amateur Radio Club P. O. Box 232
Friendship, WI 53934 (608) 564-7887
Packet: N9TD-1 on 145.03

PortaPole?

• 26.3 ft Max • 5.5 ft Min • 8.5 lb •

Telescoping Aluminum Mast
holds yagis, corners, parabolas,
rotators, beams, wire antennas.
Easy to carry, install... \$135
Park-on base support... \$70



AntennasWest
Box 50062-W, Provo UT 84605
Info S&H: \$12 pole \$6 base
\$1 Order Hotline:
801-373-8425

Silent Key

Robert A. Lofy, W9AET, passed away November 3 at age 77. Bob was a member of the South Shore Yacht Club for 30 years, and was in Amateur Radio for more than 40 years.

From Milwaukee Journal Sentinel via Rich Regent, K9GDF

beacons from a location on the other side of the city. Liekette told the police dispatcher he'd spotted his missing car, but the police had a hard time understanding how he could "see" the vehicle across town. When an officer showed up at his door, Liekette showed him the stolen car's symbol with its unique amateur call sign on an APRS city map and the officer relayed the location to police department units.

As Liekette later learned, the stolen car and a police unit stopped at the same red light at that time. The thieves were still in the car! Surprised at the officer's attention, the thieves made an illegal left turn at the light, and the chase was on. Unfortunately, the thieves abandoned the vehicle in the middle of a nearby street and got away. The recovered car had suffered only minor damage.

Tuck Miller, KC6ZEC, in *The ARRL Letter*, 11/01/96

Where's my Great Circus Train certificate at?

Unexpected delays kept jumping in the way of getting the certificates to those stations who worked the Great Circus Train July 8 and 9. But.. good news! They are being processed now and are being mailed at the general rate of about seven per day.

If you worked the train, failed to send the required 9 x 12 inch SASE, but want a certificate, send the SASE to Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913.

The 1996 operation was on 20 and 40 SSB and on 2 meter FM simplex. Operators were Don Evenson, K9JYX (using his call commemorating the first ham operation from the train 30 years ago; Don was the one); Al Johnson, AA7CS; and Jim Romelfanger, K9ZZ. Don and Al turned in a fine effort, working 230 stations all over the country, two in Italy, one Cuban station, and two in Canada. The two meter simplex operation was for the codeless Technicians; it may or may not be on the 1997 run.

With the QSO tally increasing as it has, we sure could use a corporate sponsor to help pay for certificate printing and for some postage!

Jim Romelfanger, K9ZZ

USED AMATEUR RADIO EQUIPMENT

WE BUY, SELL, AND TRADE CONSIGNMENTS ACCEPTED

We buy, sell, and repair antique clocks

X Ham Radio gear traded for clocks

X Clocks traded for Ham Radio gear

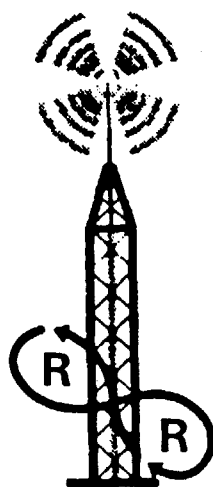
OUR STOCK CHANGES OFTEN!

RADIO RECYCLERS

Neil Lawton, WK9Q
7730 W. National Ave.
West Allis, WI 53214
(414) 771-7121

Open Monday, Tuesday,
Wednesday, and Friday
from 10 - 5
Saturday 10 - 2

Mail a card with your list of
wants and your phone
number to be added to our
computer data base!



PRB-1 Proponents Relected

Rep. Scott Jensen, at right, is one of several legislators in the Wisconsin statehouse who fought for codification of the Doctrine of Federal Preemption during the last legislative session. The bill failed, however. Another attempt will likely be made in the session starting in January. For more information about the bills, please see the story on page 9 of this issue.



Representative Scott Jensen

On the Lighter Side

By Bob Beasley, K6BJH



I DON'T THINK THIS IS THE WAY THEY PUT THE "KRINKLE-FINISH" ON THESE OLD RADIOS!

Staff

C.C. "Rich" Richelieu, W9JS, hanging up his plectrum

Clyde "Rich" Richelieu, W9JS, Oregon, WI, without a doubt one of the state best-known hams, and equally well known for his high-quality hand-made banjos, has sold his factory. "Old Man Time" has been a performing trademark of mine for many years. I always presented this number with a touch of humor, and thumbs-up optimism, but the stark reality, time waits for no man, has finally caught up

with me," he said.

Rich has made banjos since 1964, and formed "Banjos by Richelieu" in Oregon, WI in 1973. Every part of a banjo from Rich's factory was crafted by hand, and they are treasured by their owners all over the world.

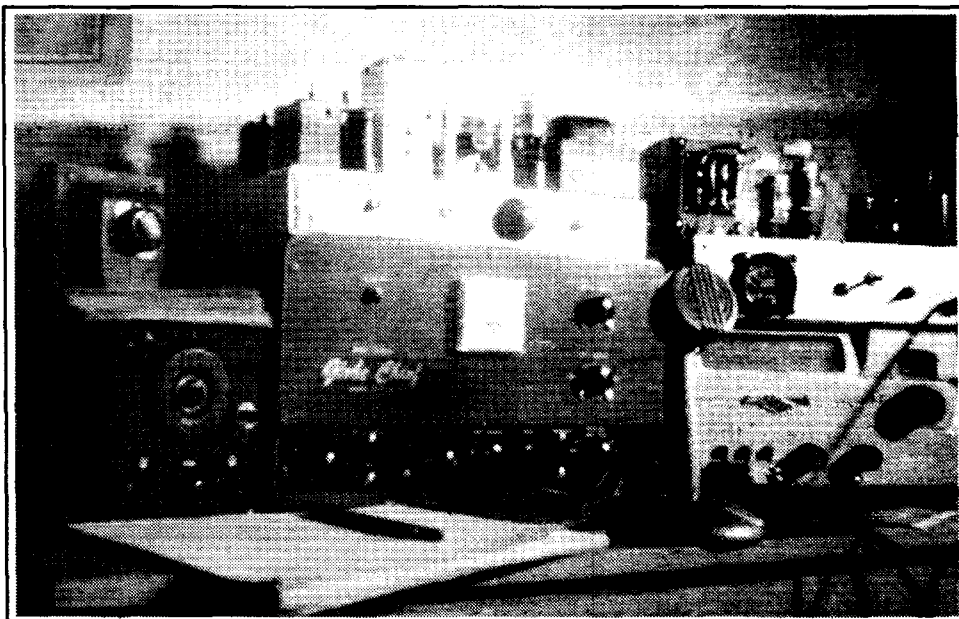
Rich served as ARRL Central Division in the 1940s.

Rich, we wish you well. May you have lots of years yet to enjoy this wonderful world. You brought a great deal of joy to it and to all of us.

Jim, K9ZZ; Ken, K9EN; Don, K9JYX;
Jim, WB9UQT; Dave, WA9POV

HAMMING IN 1958: K9PKQ

This station would never qualify as a "superstation" now, and it didn't in 1958, either. This station was the one your editor operated for several years, and lots of contacts, most on CW, were made with this gear. At left is a WW II surplus command receiver, bought in San Diego just before Wisconsin had to suffer by our return. Atop the receiver is an isolation transformer to prevent shocks from the AC power line. I managed



to get plenty of them anyway. At center bottom is a World Radio Laboratories Globe Chief 90, which had two 807 tubes in the output stage. Atop that is a homebrew VFO I got from Fred Becker, W9KKM, and the combination on the Globe Chief and that cursed VFO got the only "pink ticket" I ever got from the FCC. It was only an advisory notice, not a citation. Whew! At bottom right is a National SW-54 receiver, an AC/DC type, with the power line tied to the chassis and cabinet. That's why the isolation transformer is there. And on top of the SW-54 is a homebrew modulator. I think the first station (maybe the only one) I worked on 75 phone with this getup was Betty, K9GJC, in Watertown. Oh, the microphone. That's what you talk into when you want modulation so the person on the other end can hear you. The antenna ran parallel to our telephone drop. 90 watts of AM, capacitive coupling to the drop. Telephone interference! The then-manager of Baraboo's Bell System office, Richard Fischer (our next door neighbor, too) told me he would take my gear away if I didn't stop that. So, I stopped. Back to CW. What the hell, I liked CW best, and I still do. It's fun to reminisce, and hope you enjoyed it.

Jim Romelfanger/K9ZZ

BADGER STATE SMOKE SIGNALS

Subscription Form • Regular Individual Subscription Rates

1 Year: \$12.00 • 2 Years: \$22.00 (save \$2.00) • 3 Years: \$32.00 (save \$4.00)

PLEASE PRINT!

Name: _____ Call Sign (if any): _____

Address: _____ City: _____ State: _____ ZIP: _____

☐ 1 Year ☐ 2 Years ☐ 3 Years ☐ New ☐ Renewal

Send this form, with your check or money order, to Jim Decker, WB9UQT, Treasurer, P.O. Box 337, Baraboo, WI 53913-0337. Please do NOT send cash!

December 1996

The Computer Corner

By Stan Kaplan, WB9RQR

105 Martin Drive

Port Washington, WI 53074-9654

(414) 284-9346

WB9RQR @ N9PBY EN63BLWUSA.NA

SKAPLAN @ POST.ITS.MCW.EDU

No. 37: SPEED #2: The Address Bus

Last month we saw that the data bus has some effect on computer speed. After all, 32 hams pounding keys can send more information than 8 in a given amount of time. However, there is another bus inside the computer that has an influence on speed -- the address bus.

The address bus is a set of wires, completely independent from those of the data bus, that are used to control where in memory the data should be sent for. You see, it is not good enough just to have sufficient wires to send data in the computer. You must also have a way of telling the CPU where to send it.

Remember the table last month? The XT had a data bus width of 8 (wires), the 286 had 16, the 386DX and 486DX had 32, and the Pentium had 64. Well, suppose our 8, 16, 32 or 64 hams sitting at keys have their wires not just going to one bank of light bulbs in a single building somewhere else in the city. Rather, their wires go to a big switch bank that can send their data to any single building located anywhere in the world. The address bus controls that big switch bank.

The address in the computer's memory to which the data is sent is a unique number, just like a house number. However, because computers use a base 2 numbering system (binary), a single digit can only represent two unique addresses (0 or 1). Two digits can represent four unique addresses (00, 01, 10 and 11). Three digits can represent eight unique addresses (000, 001,...), four can represent 16 addresses (0000, 0001,...), and so on. The math is pretty simple. The numbers of data bus wires are indicated by the exponent: $2^3 = 8$ unique addresses, which is the same as saying $2 \times 2 \times 2 = 8$.

Well, it turns out that an XT has an address bus of 20 wires. To calculate the number of unique addresses 20 wires can provide (220), multiply $2 \times 2 \times 2 \times 2 \times 2 \dots$ (20 twos, in all). The answer is 1,048,576. In computer lingo, 1,048,576 is one megabyte (since one kilobyte = 1,024 bytes). So a 20 bit address bus can send the data from 8 hams pressing keys to any one of 1,048,576 unique buildings scattered around the world. Somewhere, depending on which single building is selected, each of those 8 light bulbs will light up or not, making a unique pattern that can be decoded by anyone looking at them as a lower case letter a. Which building gets the data is the responsibility of the address bus.

What about the other Central Processing Units? The table below shows address bus width (number of wires) for several CPUs, along with a very impressive capability to address unique spots in memory.

ADDRESS BUS WIDTH AND MEMORY ADDRESSING CAPABILITIES OF SEVERAL CPUs

CPU	BUS WIDTH	BYTES	KILOBYTES	MEGABYTES	GIGABYTES
XT	20 bits	1,048,576	1,024	1	
286 and 386SX	24 bits	16,777,216	16,384	16	
386DX, 486 and Pentium	32 bits	4,294,967,296	4,194,304	4,096	4

The population of the world back in 1987 was 4,975,000,000. Interesting to think that the old 386DX sitting on your desk could address over 85% of all the men, women and children living at that time! The P6 (not shown in the table above), can address 64 gigabytes of unique spots in the computer's memory. Mind boggling!

Well, then, what does this all have to do with speed? A good definition of speed in the computer world is the rapidity with which a machine can do a task. Given two otherwise equal computers, the one with a single megabyte of memory will take longer to multiply two 12-digit numbers than the one with 16 megabytes of memory. And that computer with 16 megs can only use the full 16 megs if it has a 24 bit address bus. Similarly, when you are word processing a large document in an XT, it may not all fit into memory at one time. If you are working on Chapter 5 of your book, and you need to move back to Chapter 2, you may well have to wait for the word processing program to load Chapter 2 from the hard drive into memory, before you can begin to work on it. Not a problem in a 486 with lots of memory. It is likely that all the chapters will be loaded into memory when you first start your word processing session.

So the address bus is like a telephone book, with everyone's address. When the CPU wants to send some data into memory, it depends on the address bus to make the right connections so the data is routed to the correct spot, and so it can be found later, if needed. Simple enough. You can't send mail to someone if you don't have their address!

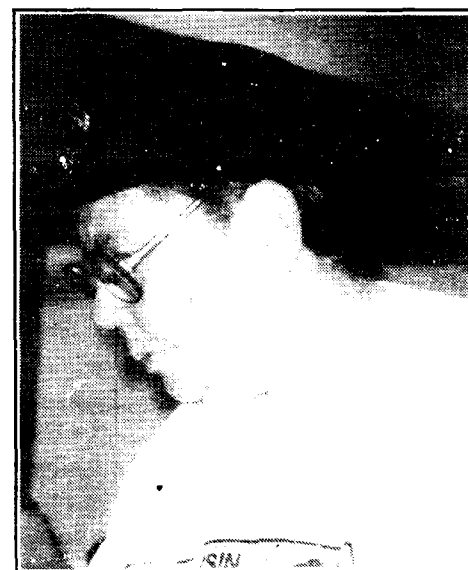
I really like the way computer guru Scott Mueller described it: "The size of the data bus is an indication of the information-moving capability of the chip, and the size of the address bus tells you how much memory the chip can handle." While both of these factors influence speed, that is still not all of the story. Some more next month. Happy computing! □

Reprinted, by permission, from the ORC Newsletter, Ozaukee Radio Club, P.O. Box 13, Port Washington, Wisconsin 53074 (Skip Douglas, KA9DDN, Editor). □

Lakeshore Repeater Association gets new officers



Ray Wolf, WB9LST



Fern Fisher, W9LCJ

The Lakeshore Repeater Association of Racine and Kenosha counties held their election of officers for 1997 on Tuesday, October 29 at the Red Cross Building in Racine. Elected were:

Ray Wolf, WB9LST, President

Bruce Zabler, K9RRS, Vice-President

Fern Fisher, W9LCJ, Secretary

Bob Jensen, W0WLN, Treasurer

Story and photos by
Jim McChesney, WA0PFV



Bob Jensen, W0WLN

Little LEO battle continues

Continued from front page .

urged a letter-writing campaign that yielded thousands of responses opposing the inclusion of 2 meters and 70 cm.

While the Little LEO proponents have not backed off, neither have they submitted any technical documentation to show that sharing with the wide variety of amateur uses could actually work. As a participant in IWG-2A, the ARRL submitted a 42-page technical rationale in late September that details why the League believes sharing to be unworkable. So far, the Little LEO industry had not responded with a technical basis in favor of sharing, and with the IWG-2A final report due November 15, the clock is running out to include any sharing studies involving amateur bands. Unless an attempt were made to short-circuit the process -- a possibility that cannot be completely ruled out in the present Washington climate -- a US proposal for sharing could not be made in the absence of such a study. Also, under the procedures announced for WRC-97, any US proposal must first be subjected to an FCC notice and public comment process and must be accepted by the US Department of State and the National Telecommunications and Information Administration (NTIA).

If other countries are working on such sharing studies, these were expected to surface at a meeting of International Telecommunication Union ITU-R Working Party 8D October 29 to November 8 in Geneva, Switzerland. ARRL Technical Relations Manager Paul Rinaldo, W4RI, and ARRL International Affairs Vice President Larry Price, W4RA, are attending the session, Paul as a member of the US delegation and Larry representing the International Amateur Radio Union. The US provided no input to the 8D meeting to suggest possible sharing between Little LEOs and amateurs. The output of Working Party 8D goes to the Conference Preparatory Meeting (CPM) in May 1997, and the CPM report will provide the technical basis for WRC-97 decisions. Without a technical basis in the record, Sumner said, WRC-97 would be "hard-pressed" to agree to a shared allocation but added, "The Little LEOs still might look for a way to get their camel's nose into our tent."

The ARRL Letter, 11/01/96

ODDS AND ENDS AND OTHER STUFF

• The Feingold anti-CB interference bill, introduced in the last session of the US Senate, died upon adjournment, according to December QST. However, the mag sez the bill will be re-introduced in the new session. Due to correspondence received by Feingold's office, and some consultation with the ARRL, it is hoped that a more sensible bill will result. It is not known if Feingold's office began working with the League before or after the good Senator received mail warning of the possible dangers of his bill as it had been constructed.

• The next e-mail list of radio amateurs in the Wisconsin area will be published in January 1997 Badger State Smoke Signals. The list is being compiled by Dave Knaus, WA9POV, of Grafton. If you would like your e-mail address and/or club URL listed, or if your e-mail address has changed, please send an e-mail to wa9pov@execpc.com. □

Some first-day applications in limbo

The FCC calls them WIPS--"works in process"-- applications that need some kind of special handling. But for up to 12% of first-day Gate 2 vanity call sign applicants, WIPS means "no new call sign." It now appears that as many as 550 first-day applications ended up in the WIPS pile, either because the FCC was unable to match one of the applicant's call sign choices or because the application contained "inconsistencies"--some as simple as a date of birth on an application that was missing or failed to match one already in the FCC's database. Other problems included an incorrect call sign on an application, a name change not reported, or putting first and last name in the wrong order. The FCC said this week that it hopes to clear its decks of all first-day vanity WIPS by today (November 15).

There's some encouraging news: An FCC spokeswoman in Gettysburg says that if you're in the WIPS pile for a reason other than "no available match," it does not necessarily mean you "missed out" on getting one of your call sign choices. A new call sign already may have been attached to your application. As of November 13, a handful of Gate 2 vanity call sign grants already had dribbled out of the FCC's spigot, bringing the grand total of successful Gate 2 applicants to 3805.

One of them was Lester Johnson -- formerly K4PTB and now W4LQ -- of Rockingham, North Carolina. "I would like to personally thank everyone connected with the vanity call sign program at HQ," he wrote. "After nearly 40 years as K4PTB I decided to try for one of the 1x2 calls. Most of the operators in the area kept telling me I was wasting my time and money. But, I suppose I lucked out. I learned this morning that I did indeed get lucky and was issued the old/new call sign W4LQ. It was not my first choice, but I certainly am not complaining." John Warinsky, formerly KD9NO, of Shoreview, Minnesota, reports he got his first pick, K9NJ (he's a New Jersey native).

One who was not so fortunate was Steve Wolf, NO8M, of North Olmsted, Ohio. His first-day Gate 2 application ended up in the WIPS pile, and he has since determined that all of his choices were assigned to other hams. So he's been working up a new list to submit another vanity application and trying to maintain his sense of humor. "If you want help getting over an initial rejection, have your kids look over the list of available calls," he suggests. "I bet you will wonder why you asked for the other ones."

Those whose applications end up being dismissed because their choices were already taken can take heart that all the "good" (ie, 1x2) Extra class call signs have not been used up -- not by a long shot. As of this week, more than 6000 1x2 calls in all US districts were still vacant -- substantially more than the number of vanity call signs the FCC has issued under Gate 2 to date.

The FCC will mail to all unsuccessful vanity applicants a copy of their application (including FCC processing numbers) and a copy of their check. To request a refund, applicants then must send a letter to the FCC, 1270 Fairfield Rd, Gettysburg PA 17325-7245, along with their taxpayer ID number (Social Security number). The FCC will not apply your first \$30 filing fee toward a second application. You must request a refund if you want your money back.

Some FCC gaffes turned up among the Gate 2 vanity call sign assignments. The call sign AT6A was issued to KK6VY in Santa Rosa, California. Unfortunately, the AT prefix belongs to India, not to the US. A California club station got a new call sign bearing an Alaskan AL6 prefix, not permitted in the lower 48. The FCC says it has dealt with these mistakes.

Still not known is just when Gettysburg will process Gate 2 applications that were received after September 23, the opening day for Gate 2. An FCC spokeswoman said this week she had "no idea" when that would happen.

Applications from approximately 1400 hams arrived at the FCC in the days following the opening of Gate 2.

Although many hams learned of their new Gate 2 vanity call signs via the InterNet within hours after the FCC made the information public, Owen Garner, formerly W1SBM, of Hampden, Connecticut, found out that he was K1AF during a casual ragchew on 160-meter CW. Owen mentioned to the other op, Dave LeDuc, K1EPJ, of Newton, New Hampshire, that he was waiting for his new vanity

I began the QSO as W1SBM and completed it as K1AF," he reports. The next day, Owen related his experience to Timothy Hutcheson, KT4LY, in Pensacola, Florida, who also was waiting for his new vanity call sign. Timothy checked the InterNet and found out he'd been issued K4LY, which he used to complete the QSO.

A footnote: although the FCC did not release the initial day-one grants until Tuesday, November 5, the applications actually were processed -- and the licenses dated -- on November 4. The FCC spokeswoman said that computer problems on the morning of November 5 prevented the release of the database file until late that afternoon. The FCC says hard copies of the November 4 grants were mailed on November 8 and November 12, so new call sign holders should have their new tickets soon.

(BSSS' editor's note: The editor of *The ARRL Letter*, the source of this story, is Rick Lindquist. Rick was KX4V. Now he is N1RL. And former Wausau amateur Bart Jahnke used to be KB9NM. Bart, who heads the ARRL/VEC, is now W9JJ. That call was formerly held by Bob Baird, W9NN, Stevens Point, when more than one station license was permitted. The call you have isn't yours, remember? It is that of your station. Bob was an engineer for WGN radio in Chicago.)

The ARRL Letter, 11/15/96

VANITY CONNECTIONS: Used to be that those 1x2 "W" call signs marked an old timer. The past and present vanity call sign systems put an end to that.

Thirteen-year-old Christina Rea, ex-N2YBU, of Colonie, New York, received one of her top choices, W2GY, in the recent Gate 2 lottery. She's the daughter of proud papa Peter Rea, WZ2X, and very active with local public service events. She got her Extra ticket 14 months ago. W2GY has had at least

first -- Walter Dietz of Yonkers, New York -- held 2GY around 1915. Corwin Crosby of Long Island City (and later Scarsdale), New York, held W2GY from around 1930s until 1946 or so. Charles Bowen of Audubon, New Jersey, held the call sign the longest, from around 1947 until around 1976, when he moved to Florida and obtained K4YZ. W2GY was reissued as a vanity call sign in the mid 1970s (the previous holder is a Silent Key). W2GY has another historic connection; the Reas live in the shadow of the transmitting tower of WGY, General Electric's first AM commercial broadcast station.

--The Hudson Division Loop

IDENTIFYING FORMER CALL SIGN HOLDERS: Some vanity call sign holders have become interested in the genealogy of their new call signs and want to know who the former holders were. While we (ARRL) don't have the resources to track down this information at HQ, those interested might try the FCC's official duplicating contractor, International Transcription Service (ITS). Among other things, ITS can research amateur call signs to determine when they were first issued and to whom. The cost of this service varies depending on the volume and research time involved. Research time is \$15 per hour, billed in quarter-hour increments. Requests can take up to one business week. Additional charges apply for expedited service. ITS is located in the FCC's Gettysburg Office. Write ITS Inc, 1270 Fairfield Rd, Suite 24, Gettysburg, PA 17325-7245; tel 717-337-1433; fax 717-337-3409.

--Tom Hogerty, KC1J
The ARRL Letter, 11/15/96

Vanity program now on hold: See page 13

25th ANNUAL MIDWINTER
Ham Radio, Computer, Electronics

SWAPFEST

SUNDAY

JANUARY 12, 1997

8:00 AM - 2:00 PM

WAUKESHA COUNTY EXPO CENTER FORUM
WAUKESHA, WISCONSIN

ADMISSION: \$3.00 Advance - \$4.00 at Door
RESERVED TABLES: \$4.00 per 4 foot table - \$5.00 at Door (if available)
ELECTRICAL OUTLET: \$8.00 (if available)
AMATEUR EXAMS: Bring your original license with you
RESERVATION DEADLINE: Dec. 20, 1996 (early reservations suggested)

THE WEST ALLIS RADIO AMATEUR CLUB
Midwinter Swapfest * Wisconsin QSO Party * WARAC Memorial Scholarship

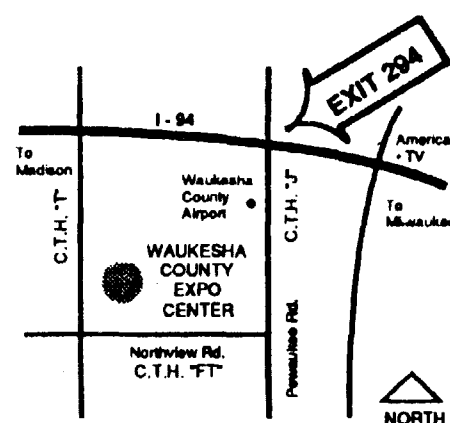
Advance Reservation Form
____ Admission Tickets at \$3.00 Each
Note: table reservation does not include admission
____ Table Reservations at \$4.00 for each 4 feet
____ Electrical Outlet \$8.00 (if available)
____ Amateur Exam Information

NAME _____
STREET _____
CITY _____ STATE _____ ZIP _____
PHONE (____) _____

Mail with business size S.A.S.E. to:

WARAC SWAPFEST
P. O. BOX 1072
MILWAUKEE, WI 53201

Waukesha County Expo Center Location



NEW PRODUCTS

Amateur Radio operators, technicians, engineers and students will find direct and clear information on the theory of antennas and transmission lines in MFJ-3305 .. \$19.95.

"Antennas and Transmission Lines" is the newest book from MFJ Publishing. It will be a quick and handy reference or good study manual for Amateur radio operators .. only \$19.95.

Most books on the theory of antennas and transmission lines are in one of two classes: the highly mathematical, graduate level class and the simplified, qualitative, non-mathematical class. Nearly all the math is simple algebra and calculus.

Most of the 37 chapters are short, and all are to the point, making the book a quick and handy reference that is easily adapted to home study. John A. Kuecken has made this book extremely easy to understand with a thorough writing style and a lot of diagrams and graphics.

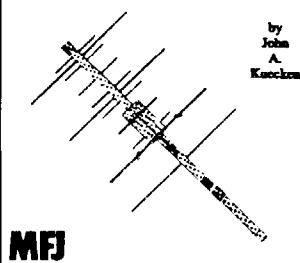
The first third of the text covers basic antenna theory, including point array sources, wave interference, standing waves, collimators, lenses, apertures, and simple radiators.

The second third of the book deals with transmission lines, discussing such subjects as line impedance matching, Smith and immittance charts, lumped circuits, waveguides, directional couplers, hybrid junctions, reactive elements, resonant circuits, and Q.

The final third of the text consists of selected antenna topics such as self-impedance, balance, short and antifade antennas, frequency-and groundindependent antennas half-space, noise, and radio-range protection.

John A. Kuecken has had wide experience as an engineer engaged in research and development of antennas and related devices. Currently, he is a consulting engineer for Electro Magnetic Development. He has owned his consulting business for 31 years. Prior to that, Mr. Kuecken was a technical staff assistant to the chief engineer of the communications laboratory in the Electronics Division

Antennas and Transmission Lines



or General Dynamics.

Mr. Kuecken is a member of the Scientific Research Society and the Institute of Electrical and Electronics Engineers. He is the author or co-author of several technical papers and magazine articles and has had 12 books published. Mr. Kuecken is in the top 1% of American inventors as ranked by number of patents held.

For more information or your nearest dealer, contact MFJ Enterprises, Inc. 300 Industrial Park Road; call 601-323-5869; FAX: 601-323-6551; INTERNET WEB SITE: <http://mfjenterprises.com>; or order toll-free by calling 1-800-647-1800.

MFJ news release

Icom IC-R8500 Super Wide Band All-Mode Receiver 0.1 to 2000 MHz



Icom introduces an advanced, top class receiver for professionals and serious SWL'ers, the IC-R8500. With super wide band all-mode coverage from 0.1 to 2000 MHz, including shortwave and VHF/UHF, the IC-R8500 provides the same professional quality performance as Icom's IC-R9000 at an affordable price. Versatile features include high speed scanning to computer control.

With continuous coverage from 0.1 to 2000 MHz with 10 Hz resolution, the IC-R8500 allows you to monitor government agencies, emergency services, security services, fire departments, VHF air and marine bands, FM-wide broadcast stations, amateur radio stations and other utilities. SSB (upper and lower sideband), CW, RTTY, AM, FM, WFM, CW, FM-N, AM-W, AM-N and CW-N (with optional FL-52A CW narrow filter) modes are all included. View TV broadcasts with the optional TV-R7100 TV/FM adapter (simply connect to a CRT monitor) and listen to stereo FM broadcasts.

Advanced RF circuits contribute to an improved dynamic range of 107dB. Separate bandpass filters provide superior characteristics for multi-signal cross

modulation and supero receive sensitivity from 0.1 to 2000 MHz, the same as Icom's HF transceivers.

A built-in high quality crystal (TCXO) provides excellent frequency stability of less than + or - 100Hz below 30 MHz; less than + or - 3 ppm above 30MHz. To achieve these specifications, Icom's IC-R8500 utilizes the TCXO crystal as the reference for the PLL and DDS circuits. Weak signals can be received even in the presence of stronger adjacent signals. The IF shift circuit effectively rejects nearby interfering signals in SSB modes by shifting the center frequency of the passband. The APF (audio peak filter) can select between two band widths. When receiving in CW, the APF changes the receive frequency response by boosting a specific frequency to pick up a desired CW signal. When receiving in the FM mode, the APF provides tone control.

To further enhance signals, the IC-R8500 includes a noise blanker, RF attenuator and selectable AGC functions to clarify desired signals when faced with various types of interference. A digital AFC function tunes the receiver to the center of WFM or FM signals. Store your frequently used stations in the IC-R8500's 1,000 memory channels and 20 scan edge channels. Each memory channel can store frequency, mode, tuning steps and RF ATT information. The 1,000 memory channels are divided into 20 memory banks, and each bank has 40 memory channels, with 100 channels reserved for auto memory write scan, and another 100 channels for skip scan. You can also store alphanumeric information up to five characters into each memory bank, and eight in each memory channel for quick reference.

The IC-R8500 also has 20 scan edge memory channels which can store 10 sets of frequencies for programmed scan plus one priority channel for priority scan. The number of channels in each bank is up to you. For easily transferring data from channel to channel, a memory copy and paste function is included.

Scanning functions include: programmed scan, memory scan, priority scan, selected mode memory scan, auto memory write scan and selected number memory scan. Scanning speed is 40 channels per second in programmed scan and memory scan with a continuously adjustable delay time. A voice scan control function enhances scanning. When a voice signal is received, the IC-R8500 pauses. When a beat signal or noise component signal is received, the IC-R8500 resumes scanning after approximately one second.

The S-meter squelch function receives only signals which are stronger than the preset level, providing a wide range between the squelch threshold level and a tight squelch level.

Enter a frequency by using the tuning dial or direct frequency entry from the keypad. Tuning is precise since the IC-R8500 is equipped with selectable tuning steps of 10, 50, 100 Hz, 1, 2.5, 5, 9, 10, 12.5, 20, 25, 100 kHz or 1 MHz. Signal resolution and readout is 10Hz. Tuning steps can be set for each memory channel to a value between 0.5 to 199.5 kHz in 0.5 kHz steps.

Additional features include high frequency stability even when receiving in the GHz range, an easy-to-read S-meter and center indicator for tuning convenience and three separate antenna connectors.

Options include a UT-102 voice synthesizer and CR-293 high stability crystal unit. The suggested retail price for the IC-R8500 is \$2,400. For further information, please contact your local Icom amateur radio dealer or Icom America, Inc., 2380-116th Avenue N.E., Bellevue, WA 98004, (206) 454-8155.

Icom news release

It's Time For Another Swapfest

The Ashwaubenon High School Tech Club

Ham Radio & Computer Fleamarket

When : December 8, 1996
8:00 AM to 1:00 PM

Where : Ashwaubenon High School
2391 South Ridge Rd.
Green Bay, Wisconsin

Admission \$3.00 in advance or
\$4.00 at the door

Talk In on 147.075+ (PL 107.2Hz)

4 foot tables are available for: \$4.00 in advance or
\$5.00 at the door

Pre-Registration Form

4 foot table(s) _____ @ \$ 4.00 = \$ _____

Admission ticket(s) _____ @ \$3.00 = \$ _____

Total amount enclosed with SASE = \$ _____

Name _____

Address _____

City _____ State _____ Zip _____

Call Sign _____ Phone _____

Make Checks payable to Ashwaubenon High School Tech Club,
P.O. Box 12631, Green Bay, WI, 54307

Contact information: Scott Cole, KB9AMM
P.O. Box 12631
Green Bay, WI 54307



OUR WANT ADS GET RESULTS

FOR SALE: Rohn 45G 65-foot fold-over tower, like new, includes 3 sets of heavy-duty Phillystrand guy wire, Rohn TA45 torque arm stabilizers, \$1300.00, you pick up. 2-meter duplexer TX-RX 400 watts, excellent condition, asking \$750.00. Tom, AA9BJ, 1658 S. 26th Street, Sheboygan, WI 53081. Telephone (414) 208-1110 or e-mail aa9bj@excel.net

SEWFARS SWAPFEST

Ham Radio • Electronics • Computers
Southeastern Wisconsin FM Amateur Repeater Society, Inc.
146.820 • 145.070 • 444.125
SUNDAY, MARCH 9, 1997 • WAUKESHA COUNTY EXPO
CENTER ARENA • WAUKESHA, WISCONSIN
Mail S.A.S.E. • Make checks payable to SEWFARS
P.O. Box 102, Delafield, WI 53018
Phone (414) 789-1034 • Talkin 146.820

KWAD-KITZ

FEATURING

- ✱ 2-element 6-meter Yagi
- ✱ 5-element 2-meter quad

YOUR VHF/UHF ANTENNA NEEDS

NEW! N4UAU's Super CW Station - Assembled

FOR INFO, CALL TOLL-FREE 1-888-531-3100
E-MAIL: thetzel@excel.net

Hams help test NASA Mars probes

Continued from front page

The first successful mission was the JPL Mariner 4 Mission launched in 1964. Since that time NASA has launched a total of 8 successful missions. The last US mission to Mars was Mars Observer launched in 1992. Contact with Mars Observer was lost just 3 days prior to arrival at Mars in 1993 August.

Since Mars Observer, NASA and JPL have been developing an ambitious, low-cost program to return to Mars. This program will be a decade long exploration of Mars with two spacecraft launches to Mars every opportunity (about every 25 months). The first missions will be the Mars Global Surveyor Mission to be launched in 1996 November and the Mars Pathfinder to be launched in 1996 December. The total funding for the entire Mars Program is less than \$200 million per year. This funding must cover the cost of developing and launching two spacecraft every two years and operating all active spacecraft at or en route to Mars over the duration of their mission. After the completion of the series of orbiters and landers, a Mars sample return mission is being considered for launch around the year 2005.

The Mars Global Surveyor (MGS) uses many frequencies onboard the spacecraft. There are the X-band frequencies (around 8 GHz) used for the primary spacecraft communication with the Deep Space Network (DSN) to send commands to the spacecraft, return telemetry from the spacecraft, and to provide navigation and tracking of the spacecraft. There is a Ka-band (approximately 32 GHz) experiment onboard MGS to test this band for future deep-space telecommunications use. And finally, there is the UHF Mars Relay to be used for relay operations at Mars between MGS and small stations and landers placed on the surface of Mars.

There is several science instruments on Mars Global Surveyor. Each instrument is fixed to the spacecraft body. With the exception of the two Magnetometers (MAG) and the Ultrastable Oscillator (USO) all others are mounted on the nadir panel of the spacecraft. The nadir panel is that side of the spacecraft which is held fixed toward Mars as the spacecraft rotates about the planet.

The camera, referred to as the MOC, consists of two camera systems, a wide angle camera and a narrow angle camera. Using a linear charge coupled device (CCD), each camera collects an image as a long strip in a push broom fashion. The wide angle camera will provide two-color (red and blue) horizon to horizon, global coverage of the planet each day. The narrow angle camera will provide selected high resolution images of the surface with a resolution of approximately 1.4 meters per pixel.

The Thermal Emission Spectrometer (TES) is a multi-wavelength infrared remote sensing instrument. It incorporates a Michelson interferometers that collects infrared spectra of the surface and atmosphere. From these measurements, the mineralogical composition of the surface can be mapped globally to a ground resolution of about 2 kilometers. With limb (horizon) and nadir scans, the atmospheric structure (temperature, pressure, etc.) of Mars can be investigated continuously. Additionally, the seasonal advance and retreat of polar caps can be monitored.

The laser altimeter, referred to as the MOLA, collects altitude measurements ten times per second as the spacecraft orbits the planet. By firing a semiconductor laser towards the surface and measure the time of flight of the backscattered light, the spacecraft altitude can be measured to a precision of about 2 meters. When combined with spacecraft tracking, a global topographic map of Mars can be obtained with a vertical resolution of about 30 meters.

The Electron Reflectometer (ER) along with the MAG will search for an internally generated magnetic field, or possibly a remnant or crustal field, at Mars. The presence or absence of a field provides insight as to the internal structure of the planet and the planet's origin.

The USO is used as a frequency reference for the X-band communication system. The radio signal from the spacecraft is accurately monitored from the ground. As the spacecraft orbits the planet, changes in the radio signal strength and frequency reveal characteristics of the Martian atmosphere and gravity field.

The final instrument is the Mars Relay (MR). This subsystem is a UHF transponder designed to provide a communication link between MGS and landers placed on Mars my other missions. Designed and built by CNES, the French Space Agency, and provide to NASA, the Mars Relay uses a 1.3 watt beacon at 437.1 MHz to alert ground stations that the spacecraft is within view, and two receive frequencies at 401.5 and 405.6 MHz to collect ground telemetry at either 8 kilobits or 128 kilobits per second. The Relay uses the memory of the MOC to buffer the received Mars surface station data into the MGS telemetry system for playback to Earth.

The objective of the Mars Relay Flight Test is to verify, while en route to Mars, the two-way functionality of the Mars Relay onboard the NASA Mars Global Surveyor and Russian Mars'96 spacecraft. The approach is to enlist the UHF-capable assistance of the worldwide Radio Amateur Community in carrying out this Flight Test of the Mars Relay shortly after launch.

Detection of the Mars relay Beacon has been tried before. Earth-based detection of the Mars [Balloon] Relay was attempted during the search for Mars Observer after contact was lost with the spacecraft in 1993 August. Several large antenna facilities around the world supported a search. Unfortunately after several attempts over many months, no signal from Mars Observer was ever detected.

Mars Global Surveyor will launch in 1996 November carrying a new CNES Mars Relay. To assure proper post-launch functionality of the Relay, a two-way flight test is being planned. The specific objectives of the test are:

- To verify the Mars Relay operational modes by observing at Earth the Beacon subcarriers, designated RC1, RC2, RC3 and TC;
- To confirm the far-field antenna pattern with Earth-based measurement of the beacon signal strength as a function of spacecraft rotation;
- To verify the Mars Relay receiver functionality with a radiated simulated, Earth-based Small Station signal with subsequent observation of the Relay TC signal lock-up, and a measurement of bit error rate as a function of signal level.

The Mars Relay Flight Test is currently being scheduled for Mars Global Surveyor approximately 20 days after launch, and possibly with the Russian Mars'96 spacecraft sometime soon after the test with MGS. At 20 days after launch, MGS is approximately 6 million kilometers distant from Earth. At these distances the 1.3 watt, 437.1 MHz Beacon signal from the Mars Relay is of sufficient signal level for detection by radio amateurs with large antenna systems (gain > 21 dBi).

The Mars Relay Flight Test will have three parts. The first part will be to activate the Mars Relay in the Beacon CW mode. This mode broadcasts the 1.3W Beacon as a pure tone at exactly 437.1 MHz. This will maximize the amount of power in a single [carrier] frequency. The mode will be active for a period of at least 24 hours. While en route to Mars, the MGS spacecraft rotates about its X-axis once every 100 minutes. Furthermore, the X-axis is pointed off the Earth by approximately 30 degrees. The combination of these two effects is to produce a Beacon signal that modulates in strength

with the spacecraft rotation. This feature provides an opportunity to observe different parts of the Relay's antenna pattern as the spacecraft rotates. The peak gain for the Mars Relay antenna on MGS is about 2 dBi.

After completion of this part of the test, the second part will be to activate different modes of the Relay. Each mode will be active for at least 100 minutes to allow the spacecraft to complete one full rotation. With the activation of these modes the Relay signal will drop by several dB as the Beacon is frequency modulated (FM) with one of four subcarriers.

Only those radio operators with the largest antennas will be able to detect these signals from MGS. The Russian Mars'96 spacecraft Mars Relay has an antenna with 12 dBi of gain, making the signal from Mars'96 more easily detectable by radio amateurs with smaller antennas, even during this phase of the test.

The third part of the Mars Relay Flight Test will be an active uplink from the 46 meter antenna at Stanford University. The Stanford antenna will be instrumented with equipment to simulate a signal from a Mars lander. The signal will be radiated with sufficient power (~2.5 kW) to match the expect signal levels received from landers on Mars by the Relay. The radiated signal will contain a pseudo-random number (PN) sequence as the transmitted data. This data can then be analyzed to determine bite error rate (BER) after the received data is returned to Earth, via the spacecraft's X-band downlink to the DSN in the case of MGS, or via the Russian ground stations in the case of Mars'96. Additionally, those radio operators with large antennas will be able to observe the TC subcarrier modulation in the Beacon signifying the Relay receiver lock-up on the radiate signal from Stanford.

The Flight Test will be coordinated from JPL. JPL will control the operation of the MGS spacecraft and will provide instruction to Stanford for the operation of the radiate uplink. JPL will coordinate with the Russians as to the operation of the Russian Mars'96 spacecraft. JPL will generate and distribute the position (range, RA and DEC) and Doppler shifts and Doppler rates for the MGS spacecraft. This same information will be asked of the Russians in support of testing with Mars'96. JPL will serve as the collection site for observations provide by radio amateurs around the World. The received Mars Relay telemetry from MGS will be analyzed at JPL and at CNES in France. The Relay data collected aboard the Russian Mars'96 spacecraft will likely be analyzed by the Russians and CNES.

Several sites with large antennas are currently planning on supporting these tests. Stanford University's 46 meter antenna will be the only site radiating a signal to the Mars Relay on either spacecraft. Simultaneously Stanford will also be receiving the downlink signals from the Mars Relay. The Apple Valley (CA) Regional Science Center is working with JPL to re-instrument the Goldstone 34 meter standard antenna (DSS-12) to receive the Relay signals. The Algonquin 46 meter antenna in Canada with help from radio amateurs is also planning to support the Relay tests.

The proximity of the spacecraft to Earth shortly after launch represents an opportunity to ask the UHF radio amateur community to participate and assist in the Mars Relay Flight Test. The expected signal levels are within the reach of amateurs operating antenna systems with 21.5 dBi of gain when listening for Mars Global Surveyor or an antenna as small as 10 dBi of gain when listening for the Russian Mars'96 Mars Relay signal due to its Relay's higher antenna gain (12 dBi).

Saturday, October 26th is set for our antenna building day, and by the time this makes press that date will have passed. If you would like more information on this project, please email n9vkc@excel.net and I will point you in the right direction. I can't say how exciting this is. Hopefully, by the next issue of BSSS I will be able to report on the project and how it went.

Information gathered from the NASA website

Pro-PRB-1 State Legislators Reelected

Wisconsin State Senator Richard Grobschmidt and Representatives Ben Brancel and Scott Jensen were all re-elected to the Wisconsin statehouse in the November general election.

Senator Grobschmidt introduced a bill (SB 544) in the last session to codify the Doctrine of Federal Preemption over state and local laws as a Wisconsin statute, and Rep. Brancel introduced the same bill (AB 900) as a companion bill in the Assembly. The bill passed the Senate and was awaiting a vote by the Assembly when Rep. Dobyms, of the Fond du Lac area, added an amendment which effectively killed the bill without an Assembly vote because the language in the bill was then different.

Rep. Scott Jensen also strongly supported the bills.

Rep. Brancel, who had been Assembly Chairman of the House-Senate Joint Finance Committee, was chosen in caucus as Speaker of the Assembly, and Rep. Jensen is now the Assembly Chair of the House-Senate Joint Finance Committee.

A number of other legislators, appreciating the emergency communications cabability of radio amateurs, also supported the bills. The bills would have likely passed both the Assembly and the Senate and signed into law by Gov. Tommy Thompson if the Amateur community shown more support. According to an aide to Rep. Brancel, it takes only a dozen or so letters to legislators to enlist their support for a bill. They did not get them.

Under the leadership of ARRL Wisconsin Section State Government Liaison Verne Teske, W9RYA, and with the help of legislators and amateurs alike, there is cause for optimism that it will be a much different story in the session starting in January.



Senator Richard Grobschmidt



Representative Ben Brancel

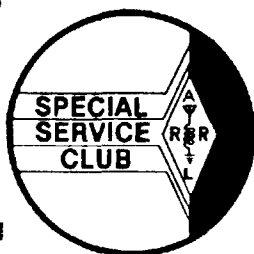
PARTICIPATING CLUBS AND ORGANIZATIONS



Riverland Amateur Radio Club

Dan Abts, N9PZC
Secretary

Club mail address: P.O. Box 621
Onalaska, WI 54650



MEETING MINUTES November 5, 1996

The November meeting of the Riverland Amateur Radio Club was called to order at 6:59 pm on November 5, 1996 by President Duane, W9HWQ. There were 21 people in attendance. The minutes of the October meeting were accepted as read by Dan, N9PZC.

Roger, KA9BKK, gave the treasurer's report. We have 72 paid members. The report was accepted as read.

Programs: The program for tonight was a report on the 440 repeater and features of dual band radios.

444.475 Repeater: Dan, N9PZC, reported that the 440 repeater was installed on October 20. It is working well and seems free of intermod problems. It is being controlled for now with the use of a 220 radio borrowed from Walt, AA9AW. The south side of La Crosse is shadowed by a bluff, but coverage other places extends to about 30 miles.

Net Manager: Pete, N9XVG, reported that the Sunday Night Net has been held regularly with between 15 and 20 check-ins. He asked for people to sign-up to be net control for a Sunday in November or December. The issue of playing Newline on the Sunday night net has not been settled.

ARES/Skywarn: Kent, W9LZQ, told us about a dinner for spotters from surrounding counties that is planned for March 22, 1997. Tom, WB9BJQ, mentioned the possibility of sending weather maps over packet. Red, WO0W, brought up the possibility of helping out Houston county with communications when needed.

Property Manager: Bob, N9LZK, was not present but Duane reported he said at the board meeting that he had recorded the serial numbers and placed an ID number on the 440 repeater equipment.

146.97 Repeater: Walt, AA9AW, said there was nothing new to report.

Field Day: Bill, KE9XQ, passed around a sign-up sheet for helping with or operating during Field Day. He will pass the sheet around again at future meetings.

VE: Bill, KE9XQ, reported that the next test session is scheduled for November

ber 30, 1996.

Old Business

Dan, N9PZC, reported that we will have to pay for the installation of and the commercial rate for the phone line at the 440 repeater site. Century Telephone is making a donation to the club. Dan made a motion, which was seconded by Karl, KB9EQI, that we install the phone line, use it for two years, then decide if we want to continue paying for it. The motion passed.

Bill, KE9XQ, passed around copies of a survey on how to improve our club. He made a motion to mail 100 copies of the survey to area hams. The motion was seconded by Red, WO0W, and passed.

New Business

Kent, W9LZQ, asked if anyone knows the whereabouts of the 220 control transceivers we had years ago to let him know. They were built in a small black box with a keypad and a quarter wave vertical antenna.

Robin, KB9LAC, passed around a printout of an unofficial web page she had created. She made a motion that it be approved as the official web page for the club. The motion was seconded by Tom, WB9BJQ, and passed. The address is www.lse.fullfeed.com/~rarc/rarc.htm.

Kent, W9LZQ, reported that the nominating committee has come up with candidates for each office. Part of the process was asking each candidate for ideas on how to improve attendance and club participation in 1997. While nominations are accepted from the floor at the December meeting, the following have agreed to run for office: Duane, W9HWQ, will run for president, Bob, N9LZK, vice president, Roger, KA9BKK, treasurer, and Dan, N9PZC, secretary.

A motion was made at 7:45 p.m. to adjourn the meeting. The motion was seconded and passed.

*Respectfully submitted
by Dan, N9PZC*

Wisconsin Valley Radio Association

Paul Neubauer, N9IOG, Secretary

P.O. Box 363 • Wausau, WI 54402

Six Meter Repeater: 51.74 Input/51.24 Output

MEETING MINUTES November 5, 1996

The meeting was called to order at 7:00 p.m. Present were: N9SDL, N9NQW, KB9OPN, KB9OPP, N9NRA, N9PHC, KB9FRB, KB9DZG, WB9LIA, N9TTA, KB9DED, N9IAB, and N9SDI.

The meeting minutes of the October meeting were read. Motion by KB9DZG to approve as read with 2nd by N9NRA; passed. The treasurer's report was given by N9IAB and accepted after a motion by KB9DED and 2nd by KB9DZG.

Upcoming events were discussed such as the Special Olympics Jan. 25-26, 1997 and Jack, N9LIA, will be looking for volunteers to assist with communications. Badger State Games Feb. 1-2, 1997 with Mike, N9IAB, taking names of volunteers for communications for that event.

Old Business included an update on the Tax Exempt status, indicating it has been filed so we're just waiting now for it to become formal. Fred, WX9W, was contacted regarding the WVRA's 6M repeater located at his residence advising him of the anticipated repairs this winter. We just need to make arrangements with Fred when we need access for repairs.

The ARES Committee had nothing to report at this time. We are still looking into getting some form of the RAIN report

back on the Wednesday night net.

Mike, KB9DED, had magnetic signs made for the club for use in "Communications". These can be placed on vehicles of club members during special events. They are also available from KB9DED to purchase for your own for \$7.00.

Thanks to all who helped at the Special Olympics bowling.

New Business: The WVRA Club will be collecting Christmas items for distribution to the residents and clients of the North Central Health Care facility. Bring unwrapped items such as playing cards, hand cream, aftershave, etc. to the December meeting. Please not things in glass containers. We will then deliver the items that are collected. Special thanks to all the members who volunteer for various club projects.

The meeting was adjourned with a motion from N9TTA, 2nd by KB9DZG and passed.

The meeting was followed with a Packet Radio 101 presentation by N9SDL in which it was discussed in basic terms what it is, what's needed to get started, what can be done with it and how much fun it can be. Great interest was generated!

*Respectfully submitted:
Kim Kunze; N9SDL*

Wisconsin Nets Association Ltd.

Jim Merrill, W9AYK, Secretary • W283 Hillendale Drive
Oconomowoc, WI 53066

WISCONSIN NETS

Net	WNA	Freq.	UTC	CDT	Mgr.
BWN	Yes	3985	1100	0600	W9AYK
BEN	Yes	3985	1700	1200	KE9VU
WSBN	Yes	3985	2230	1730	K9UTQ
WNN	Yes	3723	2300	1800	N9MXW
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9UW
NWTN	Yes	34/94	2330	1830	NS9Q
(Rhinelander area)					
RCRA	No	01/61	2330	1830	KA9OMC
(Mondays CST) (Menomonie Area)					
Gr. Bay	No	72/12	0145	2045	WB9NRK
(Green Bay Area)					
ARES	No	4.65/5.25	0100	2000	
(South East/South Central Wisconsin)					
RACES	No	3993.5	1300	0800	WA9OAY
(LSB Sunday)					



E.C.A.R.C. Eau Claire Amateur Radio Club

Carl Searing, W9NW, Secretary
1129 McKinley Rd. • Eau Claire, WI 54703
<http://www.edp.net/~mceraso/ECARC.html>

MEETING MINUTES November 12, 1996

The meeting was opened by President Kevin Zehr, N9OHE, at 1930, with 36 members and guests present, and immediately turned over to VP Bert Spangler, W9ZZI. He introduced Sean Hartnett, a Professor of Geography at UW-Eau Claire, who gave an illustrated talk on the GPS locator system that was very well given and well received. Our thanks to Professor Hartnett, and to Bert.

After a short break, the business part of the meeting opened with a discussion of nominations for the upcoming elections.

The Mission Eau Claire No-Code Technician classes will begin on the sec-

ond weekend of January, 1997, at South Middle School, running Saturday mornings from 9 to noon for 8 weeks.

A vote approved the purchase of equipment necessary to place an output tone on the 31/91 repeater, and later on the 84/24. Repeater guru Joe Eide, KB9R, who recently handled the problem of lightning damage to the autopatch, will do the installation.

KA9KAB, N9UXH, WB9RBP, and KA9HWN, assisted the city of Cadott during a simulated emergency on November 9.

As it did last year, the club voted to donate \$100 to the food pantry.

Continued on page 11



Notes From the Section Manager

Roy Pedersen, K9FHI • 510 Park Street
Juneau, WI 53039



Hey, guys and gals, how about a Caribbean cruise and be able to operate HF, VHF and UHF while cruising? Join the Racine Megacycle Club and their southern Caribbean cruise in November, 1997; contact WS9P for details.

Winter is for contesting, but did you repair your antennas when it was warm outside?

QCWA Chapter 55 had 45 at the Two Rivers banquet October 5.

Congratulations to WB9FBI, who tied the knot.

MARA repeater has a new call; the officers of that repeater went after Clyde Downing's call of W9HSY, who passed

Continued on page 11

Notes from the Section Manager

Continued from page 10

away in 1989; nice going fellas, he was a special guy.

The next time PRB-1 comes up, I urgently request all amateurs in interested parties in Wisconsin to write their State Representatives and Senators to support PRB-1 concerning towers (Smoke Signals).

Sorry to report the following Silent Keys: K9BLT, George Singer; W9KLN, Bob Meyer; W9BTI, Harold Isenring; W9RYR, Emmeth Schoen; and W0OBB, George Cox.

Let's hope CW is here to stay, real good communication mode.

Autumn is a season followed immediately by looking forward to spring (Fox-tales).

Wisconsin NTS Traffic Report October 1996

Both checkins and traffic are up a little in October. Conditions are good on the earlier nets but the later CW nets are suffering with long skip. The long skip will affect the earlier nets as the days get shorter. We are at the rock bottom of the sun spot cycle and we can all hope that conditions will improve during the next year.

Our sympathy and best wishes to Jim Merrill, W9AYK, NM of the Badger Weather Net, who is in the hospital with a serious illness. Get well soon, Jim, we all miss you.

With all eight nets reporting, 3642 stations passed 2743 pieces of traffic in October. Badger Weather Net (BWN) BWN Del W9IHW reported 1539 stations and 2374 messages passed. Badger Emergency Net (BEN) NM KE9VU reported

377 stations passed 71 messages. Wisconsin Sideband Net (WSBN) NM K9UTQ reported 752 stations passed 132 messages. Wisconsin Novice Net (WNN) WNN Del KA9GBG reported 81 stations passed 14 messages. Wisconsin Slow Speed Net (WSSN) NM N9BDL reported 279 stations passed 11 messages. Wisconsin Interstate Net/Early (WIN/E) NM WB9ICH reported 262 stations passed 71 messages. Wisconsin Interstate Net/Late (WIN/L) NM W9UW reported 208 stations passed 36 messages. Northwoods Traffic Net (NW-TN) NM NS9Q reported 144 stations passed 34 messages.

In October, ten stations had traffic totals in excess of 100, three of whom made Brass Pounders League (BPL). The stations are: WB9JSW/1631 (BPL), W9-IHW/1257 (BPL), AAOM/1023 (BPL), K9DHR/206, W9CBE/143, N9KHD/128, K9FHI/113, W9YCV/112, KA9KLZ/107 and N9BKL/102.

Twenty eight stations submitted Station Activity Reports, and ten stations submitted Public Service Honor Roll Reports.

I mail my reports to League Headquarters on the 7th of the month. That makes the deadline for reports the 6th. I can accept reports until I start printing them up for mailing. If you can catch me on the BWN on the morning of the 7th all would be well.

Hale Blakely, W9CBE, Asst. STM will also accept reports and forward them to me. Hale covers most of the CW and SSB nets so there is someone on almost every net to take reports. Reports can also be sent VIA packet. My packet address is:

KA9KLZ @ NX9V.WI.USA.NOAM

Thanks to all stations who participate in the Wisconsin nets. You are the nets and Wisconsin nets are the best. 73.

Submitted by Arthur A. Evans, KA9KLZ
Wisconsin Section Traffic Manager
November 7, 1996

Taylor County Area Amateur Radio Club

Mike Schoenfuss, N9GHZ, Secretary

P. O. Box 401 • Abbotsford, WI 54405-0401

MEETING ANNOUNCEMENT

The next regular meeting will be held on Thursday, December 5th at 7 p.m. in the Emergency Government meeting room located in the basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Talk-in on the 147.15 Medford repeater (+600 kHz) or 146.52 MHz simplex.

EXCERPTS FROM MINUTES OF NOVEMBER 7, 1996 MEETING

Meeting was called to order at 7:15 PM by President N9GEN. Present were W9QHI, AA9LE, N9GEN, KA9WDX, N9UBR and WB0HMS.

Minutes of the October 3, 1996 meeting were accepted. Treasurer's report was presented by Treasurer KA9WDX. Motion by N9GEN, seconded by AA9LE, to reimburse W9QHI for expenses he recently incurred for minor repairs to the 147.15 club repeater. Motion carried. Roy Williams, WB0HMS, of Medford, was welcomed as a new club member, having paid his club dues at this meeting. His membership is good through December 31, 1997.

An offer from Buckmaster Publishing to provide the club with one or more free copies of the current Amateur Radio call-sign database on CD-ROM, in exchange for providing them with photos of club members to be included in the database, was discussed. It was determined that the membership is not interested in this particular offer and no action will be taken.

AA9LE inquired about the prospects of PL tone being added to the 147.15 club repeater's receiver. It was noted that some club members still do not have PL encode capability on their radios. The question came up as to whether or not the PL tone encoding could be activated and deactivated via the repeater's telephone line and/or over the radio. N9GHZ will be contacted to look into this further.

N9UBR indicated that he does not have the new access codes for the repeater autopatch and he is a currently paid club member. N9GHZ will be contacted to

forward a copy of the autopatch documentation to him, including the codes.

Results of the club-sponsored, ARRL/VEC-affiliated Amateur Radio exam session on October 12th were announced. Exams were held at the courthouse building in Medford. Volunteer Examiners participating in this exam session were AA9LE, N9GEN, KA9WDX and N9GHZ. There were only two examinees to be tested. Jerry Hart, KB9MFC, of Park Falls passed the General theory exam (Element 3B) to upgrade from Technician Plus to General. Harold Horton, KB9-LWV, of Medford passed the 5 WPM Morse Code exam (Element 1A) to upgrade from Technician to Technician Plus.

It was announced that N9GHZ has completed the updates to the "1996 Directory Of Clark And Taylor County Area Amateur Radio Operators" and the final version has been printed. Copies will be distributed, within the next week or two, to everyone included in the directory, as well as area public safety and government officials. In order to help reduce the cost of sending the directories out through the mail, several of them will be distributed via e-mail or hand-delivered.

Several operators were removed from the list, since the last update was sent out two years ago. They include individuals whose licenses have since expired and have not been renewed, as well as several individuals who have moved out of the area.

In addition, listings of ham radio operators in the communities of Brantwood, Conrath, Glen Flora and Prentice were also removed, as none of the ham radio operators from those communities have, at least for the past several years, been active at all in the Taylor County club, participated in our ARES activities, checked into our weekly net or used our repeater on a regular basis. Also, none of these communities are actually located within Taylor County, and in most cases, there are other Amateur Radio clubs in closer proximity to these communities.

N9GHZ has requested that anyone finding errors or omissions in the directory please send the corrections to him.

It was announced that the date of the annual Abbotsford Christmas Parade is fast

Notes from the Section Manager

Continued from page 10

away in 1989; nice going fellas, he was a special guy.

The next time PRB-1 comes up, I urgently request all amateurs in interested parties in Wisconsin to write their State Representatives and Senators to support PRB-1 concerning towers (Smoke Signals).

Sorry to report the following Silent Keys: K9BLT, George Singer; W9KLN, Bob Meyer; W9BTI, Harold Isenring; W9RYR, Emmeth Schoen; and W0OBB, George Cox.

Let's hope CW is here to stay, real good communication mode.

Autumn is a season followed immediately by looking forward to spring (Fox-tales).

Eau Claire Amateur Radio Club

Continued from page 10

Our next meeting will be on December 10. Since it's Christmas party time, we will meet at 6:00 p.m. and eat at 6:30. K9UXP, N9OHE, and WB9RBP will purchase ham, buns, and beverages, while the membership attending is urged to bring the proverbial "dish to pass", along with their utensils. N9TUA and W9ZZI and XYL Judy will decorate the premises.

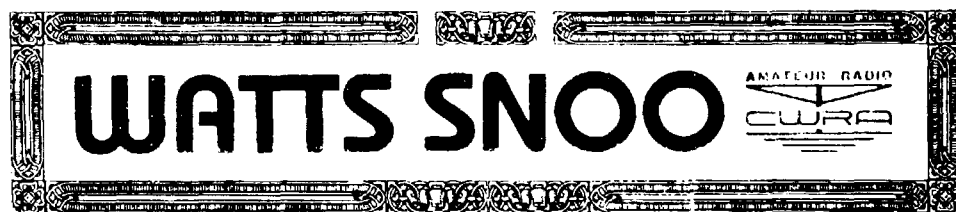
Lunch committee for January, 1997: W9NW, W9ZZI. February, 1997: KE9-KW.

Meeting adjourned at 2145.

Respectfully submitted:
W9NW, Secretary

OFFICIAL PUBLICATION OF CENTRAL WISCONSIN RADIO AMATEURS, LTD.

At University of Wisconsin, Stevens Point



WB9QFW 2-Meter Repeater 146.07-.67 and Club Station

P. O. Box 923 • Plover, WI 54467

Meeting Minutes November 13, 1996

President Mary Eiden, KA9FAS, called the meeting to order at 7:30 P.M.

This month's program was a presentation by Paul Nelles, K9DB, on a proposed remote input system for the 22/82 repeater system. Paul requested that he give his program after the meeting.

The secretary's report was, as announced by Secretary Mike Eiden, WD9-JID, in the *Badger State Smoke Signals*. Our Treasurer, Joe Larson, N9JW, wrote the treasurer's report on the blackboard before he went to teach class. Both the minutes and the treasurer's report were approved as read.

Bob Baird, W9NN, reported that the .985 repeater seemed to be working very well. He said that there is occasional QRM from the other repeater, and that always seems to happen when somebody else is using it and is very close to the QFW repeater.

Mike Pagel, KA9LAQ, reported that we need a current list of paid members so that we can update the autodial system. He said that both repeater autodial lists are grossly out of date and need to be updated. Mary reported that at the last meeting,

Frank Guth, W9BCC, brought up that we need an updated list of the Portage County hams, and that Joe Larson, N9JW, had sent her one. She said that he had marked who is paid and who is not. Mike Eiden, WD9JID, said he had the names of the paid members only. Mary said that she had a list of all the hams of Portage County. Mike Pagel, KA9LAQ, said he needs the list of paid members. He also said that Ron Howe, NJ9H, needs a copy. Bob Baird, W9NN, also requested a copy. The secretary will get a list of the paid members to them.

Mike Pagel, KA9LAQ, also reported that during the strong winds we had recently, he was walking across campus and looked up at the antenna that was put up recently and he was stunned by the fact that the antenna survived as it was really bending in that wind.

Mary reported on the radios that were zapped by lightning and that we did receive the insurance check, and that Scott Jasper, NE9U, could not be at the meeting, but that he has replaced the two radios and that as soon as they arrive, they will be put in. The radios are for the packet system.

Mike Pagel, KA9LAQ, reported that he did not have a program yet, but that he

will have it for the next meeting and that it will be exciting and entertaining!

Art Wysocki, N9BCA, reported on the Annual Banquet coming up on January 8, 1997. He reported on Michelle's restaurant. He reported on two different styles: family style or individual menu items. He reported on what was available and the prices of each. He said he went to Michelle's and looked at the room and it seemed good. After a lengthy discussion, a motion was made to go with family style. Motion passed. The family style menu was passed around and chicken, beef and ham was picked.

Mary reported on the Swapfest and that we did receive the receipt in the mail and that Joe Larson has it and that we are paid for both lodges at Junction City. Joe Larson will hold on to the receipt.

After some discussion, the club decided to pay the \$68.00 to Smoke Signals for our Swapfest ad. A motion was made to pay it. Motion passed. A check will be sent along with the new updated Swapfest ad.

Frank Guth, W9BCC, announced that he was "back in business" notifying hams as to when their licenses expire. He said to call him to let him know the date when it expires. His phone number is (715) 344-2566. The FCC is no longer notifying hams when their licenses expire.

The meeting adjourned at 8:07 P.M. After a short break, Paul Nelles, K9DB, gave a talk on a proposed remote input system for the 22/82 repeater. It was a very informative presentation.

The next meeting will be held Wednesday, December 11, 1996 in Room A-107 in the UWSP Science Building.

Attendance

Al Mallek	N9WBS
Art Wysocki	N9BCA
Bob Baird	W9NN
Dean Andrewjeski	AD9W
Frank Guth	W9BCC
Jim Benak	KA9ACE
David Tamres	KB9IIF
Joe Omerik	N9CGV
Mike Pagel	KA9LAQ
Dave Olson	N9JQU
Gary Johnson	WL7TL
Mary Eiden	KA9FAS
Mike Eiden	WD9JID
Paul Nelles	K9DB

Respectfully submitted
Mike Eiden, WD9JID
CWRA Secretary

The status of the club's old repeater antenna was discussed. In August of this year, the 145.27 repeater, owned by N9GHZ and WA9ZCO, located at Loyal, Wisconsin, and being operated by the Black River Wireless Assn. (BRWA), took at least one and possibly two lightning

Please turn to page 12

Taylor County Area Amateur Radio Club

Continued from page 11

hits. This resulted in the malfunctioning of the repeater, and it is presently off the air. The ownership of the repeater hardware has now changed hands, and the BRWA would like to at least try to get it repaired and back on the air and operating again.

Among the reported damage to the repeater was the Hustler G7-144 antenna, which was damaged beyond repair. If the repeater is to be put back on the air, the BRWA will need to come up with another antenna. Their financial situation right now may not necessarily permit them to buy a brand-new antenna outright at this time.

Earlier this year, the 147.15 repeater operated by the TCAARC underwent a change in equipment configuration, and it now shares a new commercial-grade antenna with two radio paging service transmitters located at the same tower site. The club repeater's old antenna, also a Hustler Model G7-144, was taken off the tower, dismantled, and is presently stored in the shed at the base of the tower, next to the 147.15 repeater cabinet. The antenna has experienced some wear from its years on the tower, but is still in good physical shape.

The members present at the meeting were asked to consider the following possibilities for disposition of the old repeater antenna:

1) Keep the antenna. If our present antenna-sharing arrangement with the radio paging service should ever terminate at some point in the future, we would need to put an antenna of our own back up on the tower. Of course, at that point in time, we might actually be better off just purchasing a brand-new antenna for installation on the tower rather than putting a well-worn older antenna back up.

2) Donate the antenna to the BRWA.

3) Offer the antenna for sale, outright, to the BRWA.

4) Offer to lease the antenna to the BRWA, for some sort of annual fee, with the understanding (in writing) that we could reclaim it at some future point in time if and when we needed it again.

5) Offer to lease the antenna to the BRWA, at no charge, with the understanding (in writing) that we could reclaim it at some future point in time if and when we needed it again.

It was mentioned that the price of a new Hustler Model G7-144 antenna is

approximately \$160, depending on where it is being purchased from. Club member KA9WDX offered to buy the antenna outright from the club for the price of \$80.00. Discussion of the matter followed. Motion by W9QHI, seconded by N9GEN, to offer the antenna for sale to the BRWA for a price of \$100.00, and if the BRWA indicates they are not interested in the antenna at that price, KA9WDX' offer of \$80.00 for purchase of the antenna would be accepted. Motion carried.

Motion by W9QHI, seconded by WB0HMS to adjourn the meeting. Motion carried. Meeting was adjourned at 8:02 PM.

CLARK/TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE (ARES) NEWS

Mike Schoenfuss, N9GHZ
ARES Emergency Coordinator

Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/147.15). If the repeater is down or not functioning properly, alternate frequencies, in order, are 147.15 MHz simplex and 146.52 MHz simplex. You're also encouraged to volunteer for net control duty for the net.

CONGRATULATIONS TO..

* Harold Horton, KB9LWV, Medford, who passed the 5 WPM Morse Code exam (Element 1A) to upgrade from Technician to Technician Plus Class at the VE exam session held in Medford on October 12th.

OTHER NEWS

Please make the following corrections and updates to your copy of the "1996 Directory Of Clark And Taylor County Area Amateur Radio Operators":

A) Delete KD9KL and WS9G (moved out of the area) and WA9VDE (silent key). N9ULH new home address and phone no.: N 3906 Grahl Dr., Medford, WI 54451, telephone (715) 748-0854. WB0HMS, Part 2, club dues paid(X). KD4VMB and KD4WPK new home address: MCT 46, Medford, WI 54451.

* A warm welcome to new Taylor County Area Amateur Radio Club member Roy Williams, WB0HMS, Medford. Roy is the new pastor at St. Paul's Lutheran Church in Medford. □

Mancorad Radio Club

John Meyer, NZ9Z, Secretary

P.O. Box 204 • Manitowoc, WI
54221-0204



2-Meter Repeater: 146.01 Input/146.61 Output

MEETING MINUTES November 13, 1996

The November ManCoRad Meeting was called to order at 7:43 PM by club president, Red, N9GHE.

The minutes of the October meeting were approved as printed in the *Badger State Smoke Signals*. The Treasurer's report was approved as read by Glenn, AA9MT. The motion to approve was made by Barney, N9XER, and seconded by Ken, WB9OBX.

Red noted that the club repeater has been repaired due to the efforts of Wayne Frank and Ron, WS9X. Wayne refused to tender a bill for his many hours of work on the repeater, so Red suggested the club give him a gift certificate in appreciation. A motion was made by Eric, WD9IAB, seconded by Theresa, KB9KXE, and approved, to give gift certificates to two local supper clubs that Wayne enjoys eating at.

Ron gave additional information on the repeater. The PL is now operational. It will only be used when there are band openings. The PL tone is the locally assigned 107.2, and Ron said it can be turned on and off even by those with old rigs without PL capability. Contact Ron for more details on this.

Mary, KB9GOY, will check into a date, etc. for the club's Midwinter Party. It will be sometime in January, at the Cedar Ridge Restaurant in Maribel.

A hamfest steering committee was appointed by Red to look into the possibility of changing the date of the ManCoRad hamfest, which is now just one week before Dayton. Committee members are Red, Ron and Janice, N9IQZ.

Longtime member George Cox, W0BB (ex-N9BCX) became a silent key several weeks ago. Thirty dollars was given to the club in his memory by his brother. Members were asked to think of ideas for a use for the money that would keep his memory alive, as, for instance, a ham radio book donation in his name to the Two Rivers library. Ron passed a list around of George's equipment -- the family wanted his equipment to go to club members. Contact Ron or Jan if interested.

A "Thank You" card was received from Oran Bushman for the fruit basket sent by the club during his recent hospitalization.

New member applications were read by the President. A hearty welcome to the club to Donald Kochan, KB9NTL, Chris

Herzog, N9MWZ, and Kurt Herzog, N9NDQ!

Elections were next held for club officers for the new term. New and returning officers are: President -- Jan, N9IQZ, Vice President; Dick, N9QFY, Secretary; Dave, KB9KQA, Treasurer; Glenn, AA9MT. Board at Large: Tom, KB9IJR, Barney, N9XER, Fred, W6BSF. Thanks to the nominating committee for all their efforts.

John, NZ9Z, noted that on December 10th the ManCoRad Club will celebrate the 50th anniversary of its founding. Tom, KB9GRC, volunteered to put together a newspaper article for the occasion based on reminiscences of founding members. A motion was made to adjourn by Barney, seconded by Eric. The meeting adjourned, and members partook of the fine meat and cheese platter Glenn brought in.

It has been an honor being your secretary for the past year, and I thank David Shemchak for volunteering to do the job in the months to follow.

Submitted for approval:
John Meyer, NZ9Z, Secretary

MEETING ATTENDANCE

Red	N9GHE
Glenn	AA9MT
John	NZ9Z
Patti	KB9NNX
Dave	KB9KQA
Conrad	WD9ERM
Kurt	N9NDQ
Chris	N9MWZ
Ken	K9HAG
Gene	KB9KXF
Mary	KB9GOY
Theresa	KB9KXE
Lyle	WB9VTM
Don	KB9NTL
Eric	WD9IAB
Ken	WB9OBX
Denise	N4WGX
Roger	W9NPX
Clancy	K9WIX
Paul	N9QFX
Barney	N9XER
Bill	K9DUX
Fred	W6BSF
Julie	N9PZX
James	KB9GOX
Dan	KA9EAX
Ron	ws9x
Janice	N9IQZ
Tom	KB9GRC

Quarter Century Wireless Association Southeastern Wisconsin Chapter 162

Larry McCalvy, WA9JMO
5400 Six Mile Road
Radne, WI 53402



Our annual meeting held at the Fireside Restaurant in Kenosha on the 18 of October was a social success and a financial rewarding experience for all the attendees -- the Chapter picked up the tab for the outing. Well fed and socially amenable, the members set about electing four new Directors. Selected to help guide the Chapter for the next two years were, Bob Burgermeister, WB9IJY; Larry McCalvy, WA9JMO; Ed Konicek, W9NVK; and Spence Clope, W9LDH. The four joined Fern Fisher, W9LCJ; Ken Knoff, N9NBC; and Bob Jensen, W0WLN on the board. The Directors, minus WA9JMO whose wife dragged him to Northwestern Illinois for a horse event, sat in a closed caucus to elect the club officers for 1997. Ken, N9NBC, will again lead us; Bob, WB9IJY, is the Vice President; and Bob, W0WLN, continues as our Secretary and Treasurer.

On the 14 of November, Bob, W0WLN, and Larry, WA9JMO, presented a hands-on Amateur Radio program for a cub scout troop, nine 4th graders and three adult leaders. We set up a packet station,

sent and received several messages for the scouts; demonstrated two meters using HTs; set up a status display of QSL cards around a map of the world with yarn attached to the cards and their points of origination; and explained the fine points of CW with the aid of several code oscillators. The scouts and parent leaders appeared to enjoy the demonstration if their verbal and physical interaction were indicators.

On Saturday, the 16th of November, Larry, WA9JMO; Spence, W9LDH; Ken, N9NBC; and Bob, W0WLN, volunteered to provide communications in conjunction with the Wiring Wisconsin project at a Racine Elementary School. "The event brought together technical expertise, volunteers, computer hardware and about 7.5 miles of wire. Together, those inputs added up to a school that on the following Monday will have Internet access and other technological capabilities which did not exist when the students went home for the weekend" (according to the Racine

Washington County Amateur Radio Club

Tom Waldschmidt, N9LZW,
Secretary
465 Elder Lane
Allenton, WI 53002-9799



Club Repeater: 146.73 MHz

<http://www.nconnect.net/~WCARC>

MEETING MINUTES November 14, 1996

The November 14, 1996 meeting of the Washington County ARC was called to order at 7:35 P.M. by President Walt Gossfeld, N9LLS. The fifteen members attending were N9LZW, N9LLS, W9SIZ, N9KIK, KB9NKC, KB9LTW, KG9CW, N9LOO, KB9NLF, N9SQB, N9IBU, N9XRT, KG9IG, KA9RNU, and W9XT.

The minutes of the October 10th meeting were read by Secretary Tom, N9LZW. There was a motion by Bob, KG9CW, seconded by Brian, KB9NLF, to approve the minutes. Motion carried.

The Financial Report was read by Treasurer Dave, KA9RNU. We presently have 48 members of the club. There was a motion by Bill, N9IBU, seconded by Jim, KB9LTW, to accept the Financial Report. Motion carried. Dave also asked for members to pay their 1997 membership dues early so that he can get the *Badger State Smoke Signals* subscriptions paid on time.

Repeater Committee

There was no Repeater Committee report for this meeting but Walt, N9LLS, noted that the repeater has been working

well. Brian, KB9NLF, said he felt that the audio output level was low when compared to the input. Tom, N9LZW, agreed that the audio level was low when compared to other repeaters.

ARES Report

Walt, N9LLS, reported on the Hartford Christmas Parade which was held on the afternoon of Sunday, November 10th. Five operators volunteered their time to provide communications support for the parade. Those helping were Walt, N9LLS; Tootie, N9OOY; Bill, N9IBU; Jay, N0RRC; and Jim, KB9LTW.

Walt explained that he activated the phone tree during the past week and it resulted in 20 check-ins to the net which followed. Walt was pleased with the results.

Brian, KB9NLF, reported on a recent OZARES drill that he had participated in. They did a practice search for a missing person which included the help of handlers and dogs from Great Lakes Search and Rescue.

There was some discussion about having more frequent ARES meetings. It was decided to begin having an ARES

Continued on page 13

Continued on page 13

Washington County Amateur Radio Club

Continued from page 12

meeting 1/2 hour before each monthly membership meeting.

Old Business

Walt stated that a program manager is still needed. The program manager would plan a program to follow our monthly meetings. Gary, W9XT, said he will have a speaker for a spring meeting who is involved in bicycle mobile operations. Gary also has a tape called *Introduction to Contesting* which is produced by *CQ Magazine* which can be shown at a future meeting.

Dave, KA9RNU, said he has discussed having a joint meeting with the commander of the local Civil Air Patrol group. They have their meetings on Thursday nights. Brian, KB9NLF, said that OZARES would be interested in doing some joint training with us.

New Business

There was discussion about the club's annual dinner banquet. Tom, N9LZW, said that we have been having this in January in past years so as not to conflict with other Christmas parties in December. Members were in agreement that Saturday, January 11th would be a good date with January 18th as an alternate. Members also agreed that Heidel's Restaurant would be a good place to hold the banquet. Cocktail hour would begin at 6:00 P.M. with the dinner following at 7:00 P.M. Tom, N9LZW, explained that spouses, friends, and family were welcome to attend the annual banquet. There was a motion by Dave, KA9RNU, seconded by Gary, W9XT, to authorize the treasurer to make arrangements with Heidel's and to place a one hundred dollar deposit. Motion carried.

Gary, W9XT, explained that he had received favorable comments from members about having our club assist the Kettle Moraine Radio Amateur (KMRA) club in conducting their swapfest. He said that the KMRA club has now decided to discontinue their swapfest. There was a discussion in which members expressed the

opinion that there may be too many swapfests in the area.

Walt explained that we needed to select a nominating committee for the upcoming elections. After some discussion Ed, KB9NKC, and Paul, N9KIK, offered to participate in this committee. Larry, WB9BVB, who was not able to be present was selected by the membership to be on the committee because of his experience.

Jim, KB9LTW, suggested that we establish a tone to activate receivers and radios during emergencies and for ARES/RACES nets and drills. Kevin, N9SQB, said that this tone system was mentioned in repeater directories.

Gary, W9XT, said that Brian, N9LOO, and Larry, WB9BVB, are making some nice changes to the club's WEB page.

Dave, KA9RNU, reminded members to pick up the 1997 membership forms before they left and to get their 1997 dues paid as soon as possible.

There was a motion by Bill, N9IBU, seconded by Rip, W9SIZ, to adjourn the meeting. Meeting adjourned at 8:25 P.M.

Respectfully submitted:
Tom, N9LZW, Secretary

Sheriff's Department Tour

Following the November 14th meeting of the Washington County Amateur Radio Club, Tom, N9LZW, conducted a tour of the ground floor of the Washington County Sheriff's Department. Members were able to see the administrative offices, evidence processing room, intoxilizer room, garage, range, detective bureau and lab, dispatch center, and emergency government office.

Breakfast and Event Schedule

12/05/96 7:30 P.M. On-the-air net 146.730
12/07/96 9:00 A.M. Mineshaft in Hartford
12/12/96 7:00 P.M. ARES meeting, Courthouse Rm 1020
12/12/96 7:30 P.M. Club meeting, Courthouse Rm 1020
12/14/96 9:00 A.M. Slinger Inn in Slinger
12/19/96 7:30 P.M. On-the-air net 146.730
12/21/96 9:00 A.M. Jimmy's in Jackson
12/26/96 7:30 P.M. On-the-air net 146.730
12/28/96 9:00 A.M. Corfu in Hubertus

QCWA Southeastern Wisconsin Chapter 162

Continued from page 12

Journal Times on 17 November 1996, page 1). Beside the communication between volunteer teams scattered throughout the building, the Hams pulled a few wires with the other folks. A great event for a very worthwhile cause.

Our November meeting was held at the Wustum Museum in Racine. The meeting was preceded by a very interesting guided tour of the museum's current art work. A short meeting followed, it was "Packer's Monday Night Football". The group en-

joyed Racine Kringle, a large box of donuts and coffee provided by Bill Komistra, W9OVZ. It was good; I hope nobody counted the number of donuts I consumed. Thanks Bill!

Our Christmas party is scheduled for Sunday, the 15th of December at the Meadows Restaurant in Franksville, 10615 Northwestern Avenue, beginning at 1 pm. Take I-94 to Racine County Hwy "K", head East for about two miles and the restaurant is on the South side of the road just before the railroad tracks. Each attendee is asked to bring a gift for exchanging. Five dollars or less in value and wrapped in red for a woman's gift and in green for a man's. Post cards will be sent as reminders.

73, Larry McCalvy, WA9JMO

Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call)
K9ODK (Robert L. Prime Memorial Call)

Raymond J. Matlosz, N9MLZ, Secretary
450 West 2nd Street • Reedsburg, WI 53959

The November 13, 1996 meeting of the Yellow Thunder Amateur Radio Club, Inc., was called to order at 7:40 p.m. by Steve Schulze, N9UDO.

The minutes of the October 15 meeting were accepted as published in the BSSS with the following corrections: The minutes were for the OCTOBER 15 meeting, not September and the November meeting date was 13, not 15.

Jim Decker, WB9UQT, reported on the club financial status.

OLD BUSINESS

Bill Hommel, KA9QFJ, reported that arrangements have been finalized for the Holiday Party. It will be on Friday, December 13, 1996 at the Old Highway House in West Baraboo. Informal happy hour at 5:30. Buffet at 6:30 will be \$5.95 per person.

Steve Schulze stated that the club's swap fest is on his web home page. Bill Klinkner, N9KXX, distributed posters at a recent ham swap. A decision was made since the last club meeting was to offer advance tickets at \$4.00, \$5.00 at the

door.

NEW BUSINESS

The Foundation for Amateur Radio announced scholarships for licensed hams.

Steve Schulze discussed placing an ad for the Circus Sky Swap Fest in the *Badger State Smoke Signals*. Members present approved of placing an ad in the paper. Also discussed were placing an announcement in *QST*.

Buck night winner was Jack Kirner, N9LKZ, who was not present.

Meeting adjourned at 8:05 p.m. followed by a presentation on the InterNet by Steve Schulze.

* * YTARC HOLIDAY PARTY * *

Holiday Party at the Old Highway House, West Baraboo, Friday, December 13, 1996 at 6:30 p.m. with an informal happy hour starting an hour earlier.

Please turn to page 15

Red Cedar Repeater Association, Inc.

Steve Hart, KA9OMC, Secretary

E616 810th Avenue

Knapp, WI 54749

2-Meter Repeater: 146.01 Input/146.61 Output

Greetings RCRA sponsors and guests.

The following were in attendance at the Oct. 22 social hour:

W9AVM Jim
KB9MMT Jeff, Terry and daughter Lyssa
KB9OKQ Lyle
KB9MAU Judy
KB9NGE Todd
KF9CU Arlene and OM Dave
KB9NIR Scott
KA9OMC Steve
N9LIJ Jim
N9PPE Jeff

KF9CU, Arlene, reports son Steven, KE9RW, has moved to Roseville, MN as of November. Steven sends best wishes to all.

KG9CT, Chuck, traveled to Kansas City for the Packer game and mentioned that there were a lot of cheese heads in attendance. Chuck was also able to get about 35 feet of tower up this fall and is anxious to get the rest of the work completed.

KB9NIR, Scott, was able to retrieve some parts from RCRA stores to start the build of his hf transmitter. Scott was able to get a couple of sections of his tower up this year and will probably finish the rest this coming spring.

W9AVM, Jim, invited a local Boy Scout troop to tour his ham shack. Jim also worked the sweepstakes contest last weekend and made about 125 contacts in 48 states.

WB9PMF, Tim, has built up a new code practice oscillator and has been using it on the Thursday evening sessions on the repeater. Tim has been trying out a new

vertical for HF and indicates it may need a little tuning yet.

WA9CCB, Louis at Durand, is back home after a few days in the hospital for a cold condition.

KB9OVO, Randy, and KB9OVP, Anthony, from Strum passed their nocode exams at the Menomonie testing session. Both are reviving some of the amateur equipment at their school and both look to upgrade.

N9WJY, Rod, is working with the Chippewa Falls middle school to help interested young people get started in Amateur Radio. Rod could use a little help if you have some extra time to donate.

KF9DU, Jon, is now W9QW. Our thanks to all who have remembered to send pledges for repeater support for the upcoming year including Glenn, N9TTV, who donated a Tandy 1000 to aid in some of the RCRA's secretary needs.

K9KGB, Bill, attended the "Distinguished Service Awards" dinner at UW-Stout and was entered into the "Hall of Fame".

K9RRU, Bob, has returned from travels out east. Bob reports that this retirement thing is OK with him.

The next social hour will be Jan. 28 at the Peppermill Too 1414 9th St., Menomonie. Meeting time is 7:30 pm. This will be a meeting to arrange the upcoming annual auction in February.

To all a Happy and Joyous Holiday and New Year from all the amateurs here at RCRA.

RCRA Sec/Treasurer KA9OMC
Steve Hart

Vanity Program on hold!

The FCC has confirmed reports that no more vanity call sign applications for any gates -- except for September 23 Gate 2 receipts set aside for special handling -- will be processed until Commission personnel deal with complaints from several hams whose Gate 2 vanity applications arrived too early and were dismissed. An FCC spokesman in the FCC's Wireless Telecommunications Bureau in Washington said the affected hams all had used the same express service and had requested delivery on Saturday, September 21, so they would be in the queue for the opening day of Gate 2 on September 23. Instead, all of the applications arrived on Friday, September 20, were designated as "untimely filed" and dismissed by the FCC.

The affected applicants are seeking to have their applications reinstated.

The FCC spokesman said he had "no idea" when a decision would be made in the matter. "The irony of it is, in many cases, the call signs they would like have already been assigned," he said. The affected applicants were not aware that their applications had been dismissed until a week or so after the opening of Gate 2. The FCC spokesman said the issue is under review. At best, the applications could be included with the day-two applications; at worst, they could stay dismissed, he said.

News of the delay drew several critical responses from the Amateur Radio community, and especially from those whose wait for a new call sign has been extended. Most of those who contacted ARRL Headquarters after hearing the news were upset that the problems of a handful of hams were holding up the process for hundreds of others. Others suggested that the FCC had mishandled the entire vanity program. But one ham wrote the ARRL to say that he'd sent a thank-you note to the FCC after he got his first choice in the vanity program. "The rules were clearly stated up front and the process worked

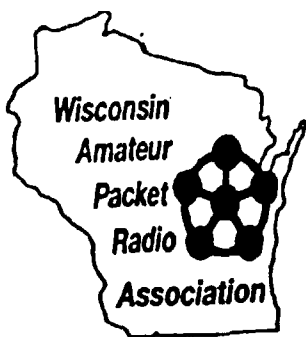
well," said Roy Rusin, W6II. "I understand the concern of those who filed too early or made mistakes on their applications, but it's unfair to blame the FCC for their error," he added. "The criticism of the FCC's handling of Gate 2 applications is unwarranted."

All vanity applications under all gates received on or after September 23, 1996 -- the opening day for Gate 2 -- now are being handled in order of the date the application was received by the FCC. This means that an applicant filing under Gate 1 will have no special advantage to obtain a formerly held call sign; in theory, at least, the call sign could be issued to a Gate 2 applicant who filed earlier. "Gates 1 and 1 A kind of lost any significance after Gate 2 opened," the FCC spokesman explained. "The only thing that matters now is the date of receipt."

Meanwhile, an FCC spokeswoman said on Tuesday that personnel at the Gettysburg office were "a little more than halfway" through the stack of up to 550 day-one vanity applications that needed some kind of special handling -- which the FCC calls WIPS for "works in process." As many as 550 first-day applications ended up in WIPS, either because the FCC was unable to match one of the applicant's call sign choices or because the application contained "inconsistencies" -- some as simple as a date of birth on an application that was missing or failed to match one already in the FCC's database. Several dozen more vanity call signs have trickled out of Gettysburg in the past few days as the FCC works through the WIPS stack from the September 23 applications.

By the way, as the FCC call sign update tapes are received and uploaded, new call sign information is inserted into ARRL membership records that can be matched against the corresponding FCC record. Your mailing label should reflect your new call sign by the February issue of *QST*.

The ARRL Letter, 11/22/96



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association

Bob Gedemer, KA9JAC

609 Wilson Street • Neenah, WI 54956

Andy Nemec, KB9ALN, Editor • 720 N. Broadway (Upper West) • Green Bay, WI 54303

WAPR News - December, 1996

by Andy Nemec, KB9ALN

Hello again, friends. Hope you have been staying warm, dry, and happy. My sincere wishes go to all for a safe and happy holiday season.

As you may have noticed from messages on your local BBS, the late fall WAPR meeting took place in Tomahawk on November 16th. I was unable to attend, so do not have an account of the proceedings. Next month, we will have the meeting minutes for you. I had planned to take give a TCP/IP seminar of sorts, and I apologize to all that were anticipating this. I will attempt to present this at the next WAPR meeting.

I have, however, found a little bit of information on the "state of the network". Last month I mentioned that there was a node planned for Timm's hill in southern Price county. The latest word that I have is the node stack is ready to go with the exception of one very important part - approval from the site owner. As soon as I hear more, I will pass it on.

In addition, a great deal of planning and work will be going into maintaining and repairing links to the West and Northwest parts of the state. At least 3 nodes are in need of repair and upgrading, and new ones are needed to make a linkage with the far northwestern part of the state practical. The meeting in Tomahawk was intended to attract Sysops and Nodeops from that part of the state. Once this area of the state is "connected", we can address other areas of the state in need, so that the Wisconsin Network is truly completed.

Recently I have talked about the large number of 7-Plus files that have been appearing on the BBS's in the state. These are specially encoded binary files that can be sent as text files. I had asked if anyone had any comments - pro or con - concerning them.

Denny, K9AEG from the Wittenburg area did take the time to comment. He said that like others, he knows little about these files and the process used to decode them. He thought the idea of a central 7-Plus server BBS was a good idea, but beyond that, he is just as in the dark as everyone else.

I would really like to hear from people who have used these files, and have comments about the process. I will gladly publish your comments in this column.

Denny also commented and gave news of the Wittenburg node stack that bears his call-sign. He tells me that after the antenna relay was changed a couple of months ago, all has been remarkably stable. He also tells me that he has not had to change the setting on the thermostat for the in-cabinet heater. You may recall that this node stack is located outside in a weatherproof cabinet. Even though it does not get wet inside, it sure will see extremes of temperature. I have asked Denny to keep his eye on this situation, as it is useful to know just how cold a 9600 baud node will get before it stops running.

And that is it for this month. If you have news and information you would like to see in print, by all means, send it to me. If there is any topic you would like to see covered in "Using the Wisconsin Network", I am certainly open to suggestion. My packet address is: KB9ALN@KB9ALN.#GRB.WI.USA.NA. My Postal address appears at the top of this page.

Until next month, 73 from Andy.

Using the Wisconsin Network - Part 22

by Andy Nemec, KB9ALN

We've all gone through it. Getting Comm-Port settings right, adjusting to the new packet program, and finally, understanding what is truly going on when we communicate by packet radio. It takes time to learn how to navigate through a packet radio network, and still more time to deal with the ins-and-outs of using a BBS. When looked at from a beginner's point of view, it seems like a rather daunting task.

As if there wasn't enough complication for new packet operators, there is always the risk of sending out a flood message, only to receive a "flame" message in response. "Flames" are unkind messages (sometimes downright hostile!) that may alert the originator of some improper or disagreeable content of a message. Occasionally, they will be misdirected attempts to educate a newer packet radio operator who unknowingly makes a mistake, or violates a regulation. Other times, the sender of the "flame" will misinterpret the content of a message. Occasionally it will just be an inability to express an opposing opinion in a civil manner. In this part of our series, we will offer some clues as to how to avoid the dreaded "flame" message.

The first step in avoiding a flame message is to try and keep your message simple, legal, and

conforming to "good Amateur practice". "Good Amateur practice" is a rather ambiguous term, but perhaps these hints will help you meet this standard, whether you are responding to a message or generating a flood message. Not to mention avoiding the dreaded Flame!

1) Only offer items for sale that have genuine amateur radio use. Avoid CB radios, cars (with or without 2-meter rigs installed in them), or any item that cannot be legally used for Amateur radio. Treat packet radio "For Sale" ads as a big swap net. A net control on a swap net would not allow you to list an automobile on the net, so why would this be permitted on packet radio?

2) Like debating? Keep your contributions civil, thoughtful, and to the point. Don't insult someone for their point of view. Don't say "I think all people who vote for candidate John Q. Politician have holes in their heads!". This is only asking for a flamed response. The surest way to turn your audience off is to insult them! This may sound like common sense (and it really is), but is so easy to forget.

3) Don't inadvertently advertise for anybody, this includes yourself. Although it is perfectly legal and commonplace to have your company name and position on Internet E-Mail, it may be construed as a subtle advertisement when done on packet radio.

4) Keep your signature file short. A long signature file with cute pictures, American flags, and other unnecessary information will only serve to alienate someone. If you do send a signature file, make sure you do not have an excess number of blank lines in it. A good signature file will have useful information in it - such as how to respond via packet or Internet E-Mail. A bad signature file might have a large American Flag with the words "Vote Straight -----" (fill in the party of your choice!) in it. 5) Avoid using Upper-Case lettered words to emphasize a point. THIS is considered SHOUTING and IMPOLITE. (See how easy it is to be irritated by this?)

6) Consider whether your message will be of interest to others. If you are interested in say, astronomy, you may find an interested party or two to converse with. If you are looking to correspond with someone regarding 13th century romance languages, you may have a much tougher time. Consider sending a CQ message first - Don't send a bunch of messages that few are likely to respond to.

7) On the subject of CQ messages, it makes no sense to send a CQ@WW message when you want to make a packet contact to Arizona. If you are targeting a particular state, use the @ symbol followed by the two-letter state abbreviation. Most BBS's are set up to forward based on the state abbreviation, and you will be able to target an area rather than needlessly flood the country (or the world) with a message intended for limited distribution.

8) Keep your message content in good taste. Long, graphic descriptions of invasive medical procedures are not only unnecessary, but in poor taste. Remember that you cannot always target your audience - someone may read such a message out of curiosity. And not all messages (or conversation) are suitable for all people.

These are a few hints to help you avoid the dreaded flame. Believe it or not, I have seen messages that are contrary to one or more of these suggestions, and recently.

There is one more that you should take to heart, though. Use the old "tincture of time" prescription to help you avoid flame messages.

When you read a message that you disagree with, or find really offensive, save it to a file while you are reading it. Then let it sit for a day. Reread it and try to determine if the words used actually mean what they seem to mean. Remember, humans make mistakes, hit the wrong keys, and choose the wrong words. Someone may have had a bad day, and may have taken it out on their keyboard.

Once you have saved this message, reread it, and decided to respond to it, it will be easy to intelligently debate. Simply edit the file with a text editor and remove the lines in the original message. Add your own, and you have a reply. If you need to quote the originator, you can add a > sign in front of each line. Some packet programs include this feature, so this may not be necessary. Once you see the original text, you are not caught trying to remember what was said by the originator.

Once you have typed a reply, let it sit for a day or two. Nothing is so important that it can't wait a day. Some packet debates take place over the course of weeks, or even months. Then look at what you have typed to see if it is really what you meant to say. This will pave the way for a civil response. Once you are satisfied with the way it is worded, use the upload feature of your packet program to send it to the BBS.

After all is said and done, you may still get a flame message. Some folks do not always interpret what you say in the same way that you might. Some folks just like to flame others. If this is the case, simply follow the above steps (saving the message to a file, rereading it, and then editing a response) to try and keep from falling into the same trap.

These suggestions will not guarantee a "Zero-Flame-Zone" on your local BBS, but it sure can help to make it a little better. And the fewer flames that are forwarded by the BBS network, the better Amateur Radio is for all of us.

Until next time, 73 from Andy.

WISCONSIN AMATEUR PACKET RADIO MEMBERSHIP APPLICATION

PLEASE PRINT

NAME: _____ CALL: _____ HOME PHONE: (____) _____

ADDRESS: _____ CITY: _____ STATE: _____ ZIP: _____

HOME BBS: _____ FREQ. _____ (Listing your home BBS is important)

Your HOME BBS should be a full service BBS, not your TNC's mailbox.

MY PACKET STATION OPERATES: _____ DAY _____ NIGHT _____ 24HRS

I OPERATE A: _____ DIGIPEATER WITH ALIAS OF: _____

_____ FULL SERVICE BBS

PRIMARY PACKET INTEREST/EXPERTISE IS: _____

YES I want to receive Badger State Smoke Signals and I understand that part of my dues goes to pay this subscription. cost \$20.00

NO I do not wish to receive Badger State Smoke Signals as a part of my WAPR membership. Cost \$15.00

COMPLETE and return this form with your check or money order - \$15.00 membership only or \$20.00 membership and Badger State Smoke Signals. made payable to W.A.P.R. (NOT payable to Bob Gedemer) to:

Bob Gedemer KA9JAC/WAPR
609 Wilson St.
Neenah, WI. 54956-3129

FCC issued callsign update

The following is a list of the FCC's most recently issued call signs as of November 12..

District	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	AB0DC	KI0FC	++	KB0YXI
1	AA1QU	KE1GI	N1YCR	KB1CAD
2	AB2CK	KG2JD	++	KC2ADQ
3	AA3PC	KE3YB	N3YGZ	KB3BQZ
4	AE4YV	KT4XU	++	KF4NBG
5	AC5KH	KM5ER	++	KC5WVH
6	AC6YH	KQ6KI	++	KF6HGA
7	AB7TF	KK7CT	++	KC7THI
8	AA8YM	KG8ZL	++	KC8FFX
9	AA9TN	KG9IJ	++	KB9OWJ
HI	AH7H	AH6OV	KH7BO	WH6DCV
AK	#	AL7QT	KL0BI	WL7CTY
VI	WP2X	KP2CJ	NP2JM	WP2AIH
PR	KP3V	KP3AN	NP3HM	WP4NMO

New prefixes are available for this block, but no call signs have been issued.
++ All call signs in this group have been issued in this area.

The ARRL Letter, 11/22/96

Yellow Thunder Amateur Radio Club

Continued from page 13

Sincerely,
Raymond J. Matlosz, N9MLZ
Secretary

The following members and guests
were present:

Jim Decker, WB9UQT	Baraboo
Steve Schulze, N9UDO	Baraboo
Bill Hommel, KA9QFJ	Baraboo
Jim Paul, N9LKY	Baraboo
George Gabay, N9QQR	New Lisbon
Raymond Matlosz, N9MLZ	Reedsburg



SHEBOYGAN County Amateur Radio Club

Chris Jacobs, N9VKC, Secretary
W4065 Dekker Rd., Waldo, WI 53093

The November meeting of the Sheboygan County Amateur Radio Club was brought to order by Penny, N9TCF.

The program was an ARRL tape regarding contesting that had a lot of information for those who are interested in contesting.

The December meeting is usually our Christmas gift exchange meeting, so bring a gift and some good cheer. We will have as a guest speaker Dave Dunlop from the Wisconsin Space Business Roundtable giving a presentation on 1997's Rocket day and the project in whole.

The Mars antenna project is moving ahead a bit behind schedule but it is in the works. We were shooting to receive data from the Mars 96 probe but that probe met an untimely demise last week and plummeted into the ocean before leaving earth's orbit. MGS is still enroute to Mars and the Pathfinder probe is being prepped for launch. There will yet be opportunities for us to use the antenna we have built. There is an article elsewhere in this issue of BSSS describing the payload.

Merry Christmas, and I hope to see everyone at the December meeting. □

AEA for sale but still in business

Advanced Electronic Applications Inc -- better known as AEA -- is on the market and is no longer handling customer service requests, as callers to the company's Lynnwood, Washington, headquarters discovered this week. Telephone calls to AEA now are being answered by a machine. A recorded message says: "We are in the process of selling the company and are not able to take your call. If you need further information regarding service, we would suggest that you contact the ARRL in about a month, as they will be kept aware of any purchase arrangements."

The League was unaware that it would be listed as a contact point. Those seeking customer service assistance should not call the ARRL to request it. The League has no information in this regard and cannot help AEA customers. However, the ARRL will inform the ham radio community of new developments via The ARRL Letter and QST.

Earlier this year, company chairman

Mike Lamb, N7ML, took over day-to-day control of AEA, following the hasty departure of former president Rod Proctor, K17ZI. Lamb had hopes of turning the company around and had introduced several new products on the Amateur Radio market, including the long-awaited DSP-232 multimode TNC, a 6-meter halo antenna, and a dedicated 9600-baud packet transceiver. In recent weeks, Lamb has made no secret of the fact that he has been seeking a buyer or new investors for AEA; over the past two months, the company has laid off most of its employees. While the company no longer handles customer service requests, Lamb said this week that AEA still is taking orders and even continues to manufacture some items. AEA products also continue to be available from some dealers. The company's three product lines include antennas, test (analyst) equipment, and data products/software.

The ARRL Letter, 11/22/96

Metzger wins ARRL Director election unopposed; Vice-Director race gets closer

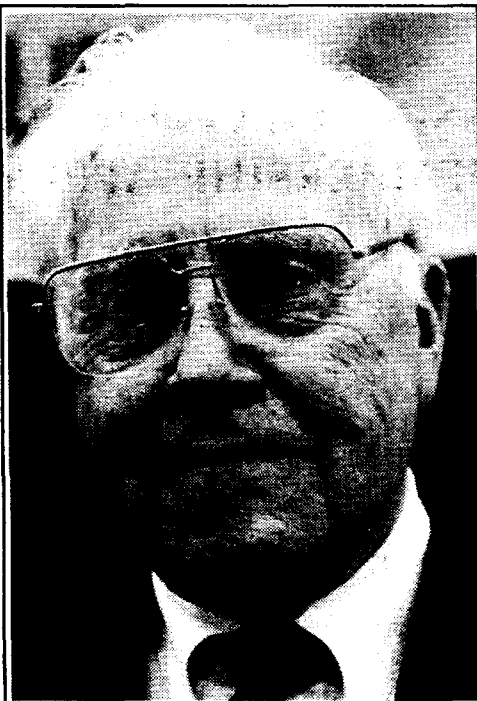
Incumbent American Radio Relay League Central Division Director Ed Metzger, W9PRN, (in photo at right) was re-elected without opposition in ballot counting in mid-November.

Challenger for Vice-Director Mike Hoshiko, W9CJW, came the closest yet to defeating incumbent Howard Huntington, K9KM, with the following totals:

Howard Huntington, K9KM, 2188.
Mike Hoshiko, W9CJW, 2095.

Hoshiko has made a number of tries for the vice-director post over the past 12 years or so.

The photo of Metzger was taken at the Madison Swapfest in April, 1996.



WEEKLY NETS

SUNDAY

10-10 Net on 28.455 MHz at 1:00 p.m.

MONDAY

10-10 Net on 28.455 MHz at 8:00 p.m.

WEDNESDAY

ARES Practice Weather Net 147.270 + MHz at 7:00 p.m.

Chat Net 147.270 + MHz at 8:00 p.m.

THURSDAY

Kids-R-Us Net 147.270 + MHz at 7:00 p.m.

QCWA Chapter 162 Net 147.270 + MHz at 9:00 p.m.

WANT TO CHAT?
LOCAL FREQUENCIES:

28.455 USB

52.200 USB

52.525 FM simplex

145.530 Packet (Local BBS: K9RRS)

146.460 FM simplex

147.270 + W9UDU/R (no PL)

223.800- KC9NG/R PL 127.3

224.800- WB9LST/R PL 114.8

442.000 + W9UDU/R PL 127.3

442.200 + N9OEZ/R PL 103.5

443.950 + KA9JMK/R PL 127.3

444.050 + KA9LOK/R (no PL)

444.950 + WA9BDX/R PL 114.8

Dave Voss, WB9USI

Troyer Rexall Drug Store
106 Fourth Avenue, Baraboo, WI 53013
Jack D. Troyer, R. Ph. David M. Fuhs, R. Ph.

"Good Health is Our Business"

WE MAINTAIN A COMPLETE RECORD OF YOUR FAMILY'S PRESCRIPTION PURCHASES

Phone 356-4964

Scherschel Camera Shop

EVERYTHING PHOTOGRAPHIC



129 Fourth Street
Baraboo, WI 53913

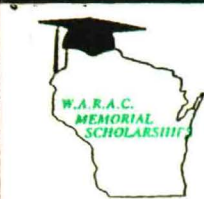
(608) 356-9165

Darrow's COUNTRY MARKET

1212 8th STREET
BARABOO, WISCONSIN

The Badger State Smoke Signals Shopper's Guide

SWAPFESTS



1996 WINNERS
Christopher D. Molek, KB9OTK,
Richland Center
Karl J. Mueller, N9NFQ, West Allis
Amy L. Thachao, N9TLN, Wisconsin Rapids

Both Sponsored By
THE WEST ALLIS RADIO AMATEUR CLUB, INC.
P. O. BOX 1072 • MILWAUKEE, WISCONSIN 53201

25th ANNUAL MIDWINTER
SWAPFEST
WAUKESHA EXPOSITION CENTER
WAUKESHA, WISCONSIN
**SUNDAY
JANUARY 12, 1997**

HAM IT UP EVERY SPRING!
MADISON SWAPFEST
SUNDAY, APRIL 13, 1997
Dane County Expo Center
Exhibition Hall
Sponsored by MARA/W9HSY
P. O. Box 8890 Madison, WI 53708-8890
Swapfest Information Line: (608) 245-8890

SOUTH MILWAUKEE AMATEUR RADIO CLUB
SWAPFEST 97
July 12, 1997
(Held every July)
American Legion Park
Shepard Avenue • Oak Creek, WI
(414) 762-3235 Extension 58
P. O. Box 102 South Milwaukee, WI 53172

Fox Cities Hamfest
Sunday, November 3, 1996
Starlite Club, Hwy. 55 north of Kaukana

HAMFEST INFO:
Chad Pennings, N9PRC
318 E. Brewster St.
Appleton, WI 54911
(414) 759-0799

EXAM INFO:
Larry Siebers, KD9IA
(414) 759-1167

Lakeshore Hamfest
and Computer Swapfest
Manitowoc County Expo
Intersection of Hwys. 42-151 and I-43 on Cty. Hwy. R
Saturday, May 10, 1997
For more information, call:
Glenn, AA9MT: 414-684-7096
Red, N9GHE: 414-684-9097 (nights)
ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

HAMFEST & COMPUTER EXPO
ANTIQUÉ RADIO SHOW

8 A.M. TO 3 P.M.
OMNI CENTER • ONALASKA, WI
2 1/2 MILES NORTH OF LA CROSSE, WI ON HWY. 35
RIVERLAND AMATEUR RADIO CLUB
WESTERN WI ANTIQUÉ RADIO COLLECTORS CLUB
CALL DICK LOW, K0JYB • 1-608-784-9176
1520 NAKOMIS AVE., LA CROSSE, WI 54603

**20th Annual
CWRA Swapfest**
8 a.m. to 2 p.m.
JUNCTION CITY VILLAGE PARK
Info: John Feltz, WA9LWJ (715) 457-2506
973 E. First Street Junction City, WI 54443

Eau Claire Amateur Radio Club
SWAPFEST
Saturday, July 12, 1997
Eau Claire County Fairgrounds
Intersection of Highways 93 and I-94
Carol Ceraso • (715) 723-9205 Liz Seasing • (715) 834-1303
P.O. Box 1867 • Eau Claire, WI 54701
<http://www.edp.net/~mceraso/hamfest.html>

RACINE HAMFEST 97
Sunday, July 27, 1997
8 A.M. - 2 P.M.
SOUTH HILLS COUNTRY CLUB I-94
East Frontage Road
Between Highway 20 and Highway K
OUTDOOR AND INDOOR SALES
Free Tailgating
Air Conditioned
Commercial Dealers • Forums
TABLES \$8.00
Advance Tickets \$ASE and \$4.00
Send to RMC, P.O. Box 3, Racine, WI 53401

Ozaukee Radio Club
**19TH ANNUAL RADIO AND
COMPUTER SWAPFEST**
8 a.m. to 1 p.m. • Circle B Recreation Center
Intersection of Highway 60 and County I
Exams by Badger Examiners, c/o Gary Sharbuno,
5119 W. Willow Rd., Brown Deer, WI 53222
Swapfest sponsored by the Ozaukee Radio Club
W58 N985 Essex Drive, Cedarburg, WI 53012-1439

Kettle Moraine Radio Amateurs
SWAPFEST
Sunday, October 13, 1996
Waukesha County Expo Center
Info: KMRA Swapfest P. O. Box 411
Waukesha, WI 53187-0411

Red Cedar Repeater Association, Inc.
AUCTION
February 25, 1997 • 7:00 p.m.
American Legion Post 53 • 634 Water Street
Eau Claire, WI
CONTACT:
Steve Hart, KA9OMC 715-665-2374
E616 810th Ave. Knapp, WI 54749

PRODUCTS AND SERVICES

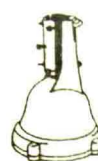
Plan to attend the 3rd Annual SuperFest
& 40th Anniversary Celebration at ...
AMATEUR ELECTRONIC SUPPLY
Friday May 2nd — Saturday May 3rd
3:00 PM-8:00 PM 9:00 AM-5:00 PM
Over 36 Ham Manufacturers with Displays • Seminars
VE Testing • Ham & Computer Flea Market
SuperFest Specials • Promotional Items • 100+Prizes
Grand prize: Las Vegas Trips • More!
414-358-0333 • 5710 W. Good Hope Rd., Milwaukee, WI 53223 • 800-558-0411



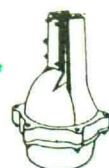
M, Tue, W, F ... 10-5
SAT 10-2
**Radio
Recyclers**
USED AMATEUR RADIO EQUIPMENT
Neil Lawton WK9Q
414-771-7121
Buy • Sell • Consignment
7730 W. National Avenue • West Allis, WI 53214

Dick Scarvaci K9 CAN
K9---CAN-FIX
AMATEUR RADIO EQUIPMENT REPAIR
EVENINGS AND WEEKENDS---CALL AHEAD
(414) 375-6900 Grafton, WI 53024

Craig Henderson Phone (419) 352-4465
N8DJB Hours: 10 - 5



Rotor Doctor
Rotor Parts and Repair



7368 S.R. 105 Pemberville, OH 43450

(715) 644-2112 FAX: (715) 644-2621
RICH'S GENERAL STORE AND SURPLUS
Route 2 • Stanley WI 54768
"YOUR DISCOUNT HAM SOURCE"
Alinco mobile HF, VHF/UHF, and HTs
Ask if any Alinco factory closeouts are currently available!
BOOKS • CASSETTES • VIDEO TAPES • GARMIN GPS
Jo, N9MEI Rich, N9MEH
(800) 646-RICH

TRI-COUNTY ARC PRESENTS
HAMFEST 1997
YOUR SPRING FAVORITE!
Sunday, March 16, 1997
Jefferson County Fairgrounds
TCARC • 213 Frederick Street 414-563-6381
Fort Atkinson, WI 53538 Evenings

TOWER ELECTRONICS

CONNECTORS, ADAPTERS, AND MORE



1-800-662-3422
(414) 496-0989



P.O. BOX 12631
GREEN BAY, WI 54307

2205 DOROTHY LANE
GREEN BAY, WI 54304

BATTERIES
BATTERIES FOR ALL YOUR POWER REQUIREMENTS

NICKEL CADMIUM
SEALED LEAD ACID
GEL CELLS
ALKALINE
LITHIUM



E.H. YOST & COMPANY
2211-D PARVIEW RD.
MIDDLETON, WISCONSIN 53562
TELEPHONE (608) 831-3443
FAX (608) 831-1082

VCR SERVICE

North Freedom Electronics
Same day service by appointment

VCR Cleaning: \$19.95

Computers • Musical Instruments
Stereos • Auto Sound • CDs • CBs

Sorry, no TVs or stacked stereo systems
HOURS MAY VARY - CALL AHEAD

John Schmelzer
201 E. Walnut, Box 18

(608) 522-4366
North Freedom, WI 53951